SOUNDINGS

American Cetacean Society-Monterey Bay Chapter, PO Box H E, Pacific Grove, CA 93950 www.starrsites.com/acsmb

January Meeting

By Bob Mannix

Monthly meeting at **Hopkins Marine Station,** Lecture Hall, Boat Works Building (Across from the American Tin Cannery Outlet Stores)

Meeting is open to the Public

Date: Thursday, January 31, 2008
Time: 7:30 PM. **PLEASE JOIN US AT 7:00 FOR REFRESHMENTS**
Speaker: Captain Mat Curto
Title: The Marine Life of the Santa Barbara Channel with a focus on Blue, Humpback, Gray and Killer Whales and several other species of dolphin.

Capt. Mat Curto has worked for Condor Cruises for over 13 years and is one of the captains of the Condor Express. This company has been providing whale watching trips in and around the Santa Barbara Channel since 1973. The company's newest boat is the 75 foot Condor Express and was put into service in 2002. The boat is the epitome of comfort, speed and safety and was specially designed to be environmentally friendly and safe around marine animals.

In addition to providing whale watching and pelagic birding trips for the public, Condor cruises also works with a number of scientists and research organizations to document and study the vast and diverse animal life within the Santa Barbara Channel.

Please join us as he shares some of his most memorable moments from these cruises.

INSIDE THIS ISSUE

Baleen Whales Able To Swallow Busload of Water

Scale "Defies Imagination"
From *Underwatertimes.com News Service*
Berkeley, California

Some baleen whales, in their powerful feeding lunges, gulp a volume of water equal to a school bus, according to new calculations by biologists at the University of British Columbia and the University of California, Berkeley.

These big gulps more than double the whale's size, at least for the few seconds it takes for the whale to squeeze the water out through its rack of baleen filters to capture tasty shrimp-like krill.

"The scale of this activity almost defies imagination," said Nicholas D. Pyenson, a UC Berkeley graduate student in the Department of Integrative Biology and the Museum of Paleontology. The lunge carries the fin whale some 35 feet.

Pyenson, along with graduate student Jeremy A. Goldbogen and zoology professor Robert E. Shadwick of the University of British Columbia in Vancouver, published their findings in the November issue of the journal *Marine Ecology*

Please see *Busload* on page 4

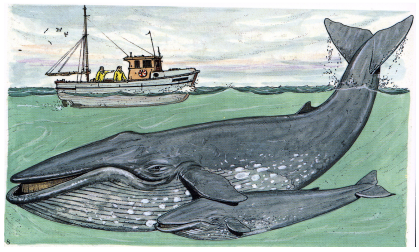
Whalewatching Fundraiser

ACS MONTEREY BAY CHAPTER
SATURDAY, JANUARY 19, 2008

The Whales are Coming! The annual gray whale migration will be in full swing in January.

Join the Monterey Bay Chapter of the American Cetacean Society -- the Whale People -- on a 2-hour boat cruise to observe and learn about our annual visitors. In addition to gray whales, sea otters, harbor seals, and sea lions, there's a good chance of seeing dolphins.

Local naturalists will be on board to narrate and answer questions. Funds earned will be used for Monterey Bay's educational and research projects. The cruise will be hosted by Monterey Whale Watching (formerly Monterey Sport Fishing).



The trip leaves at 8 a.m. on Saturday, January 19 from Monterey Whale Watching on Fisherman's Wharf, with boarding at 7:45 a.m. Cost is $30.

Don't wait! This trip fills rapidly and you won't want to miss it. Call 372-6919 or 649-1249 for more information or to sign up for the trip, or send your check to ACSMB, PO Box HE, Pacific Grove, CA 93950.

Gray Whales a Fraction of Historic Levels, Genetic Research Shows

Gray whales in the Pacific Ocean, long thought to have fully recovered from whaling, were once three to five times as plentiful as they are now, according to a new article.

Today's population of more than 22,000 gray whales has successfully been brought back from the threat of extinction and is now the most abundant whale on the North American west coast. But the new findings from researchers at Stanford University and the University of Washington suggest that the current population is actually far below the original number--estimated by genetic methods at 96,000 animals--that once roved the Pacific Ocean.

The report also weighs in about why large numbers of gray whales have recently been discovered suffering from starvation.

The report also weighs in about why large numbers of gray whales have recently been discovered suffering from starvation. Previously it was assumed that the thin and starving animals are a consequence of the gray whale population exceeding its historical ecological limits. But if the Pacific normally housed 96,000 gray whales, then starving whales may be suffering reduced food supply from changing climate conditions in their Arctic feeding grounds. This possibility parallels reports last year of major climate shifts in the Arctic ecosystems in which gray whales feed. The study also suggests that lowered numbers of gray whales no longer play their normal role in ocean ecology.

Gray whales were hunted extensively in the late 19th century. "The lagoons of Baja California were the primary killing fields for

Please see *Genetics* on page 7

Japanese Whalers Hunt Humpbacks for First Time in Decades

From *BBC News*

A Japanese whaling fleet has set sail aiming to harpoon humpback whales for the first time in decades.

The fleet is conducting its largest hunt in the South Pacific - it has instructions to kill up to 1,000 whales, including 50 humpbacks.

The humpback hunt is the first since a mid-1960s global ban and has drawn strong protests from environmentalists.

Commercial whaling was stopped in 1986 but Japan is permitted whaling in the name of scientific research.

Four whaling ships, including the lead craft Nisshin Maru, set off from the southern port of Shimonoseki on Sunday, 18 November 2007.

The 239-man mission plans to kill more than 900 minke whales as well as fin whales and humpbacks, in a South Pacific whale hunt that will run until mid-April.

The 8,000-metric ton Nisshin Maru was crippled by a fire on a whaling mission in the Antarctic in March. One crew member was killed.

A Greenpeace campaign ship will be following the Japanese fleet.

Tokyo's plan to target the humpback - which was hunted to near extinction four decades ago - has drawn condemnation from environmentalists. "Humpbacks are very sensitive and live in close-knit pods so even one death can be extremely damaging," Greenpeace spokesman Junichi Sato said.

Japanese fisheries officials insist both humpback and fin populations are back to sustainable levels.

Please see *Hunting* on page 4

Ancient Whale Fall Found from Año Nuevo Island

By Robert Sanders, Media Relations | 13 September 2007

BERKELEY - A fossilized whale skeleton excavated 20 years ago amid the stench and noise of a seabird and elephant seal rookery on California's Año Nuevo Island turns out to be the youngest example on the Pacific coast of a fossil whale fall and the first in California, according to University of California, Berkeley, paleontologists.

Whale falls, first recognized in the 1980s, are whale carcasses that fall to the deep-ocean floor where, like an oasis in the desert, they attract a specialized group of clams, crabs and worms that feed for up to decades on the oil-rich bones and tissues.

Some scientists think these random, deep-ocean oases are stepping stones for organisms moving from one ocean floor environment to another - whether a hot vent, a cold seep or a whale carcass - in search of sustenance from energy-rich chemicals.

"The fossil whale fall shows that these deep-sea communities didn't need especially large whales as a source of nutrients - in fact, the fossil whale from Año Nuevo Island was no longer than a VW bug," said Nick Pyenson, a graduate student in UC Berkeley's Department of Integrative Biology.

Pyenson and museum scientist David M. Haasl, both of UC Berkeley's Museum of Paleontology, published their findings in this week's online edition of the journal Biology Letters.

The Año Nuevo skeleton, discovered in 1987 by then-UC Santa Cruz graduate student Brian Fadely and excavated by Graham Worthy and local fossil expert Frank Perry, was considered a rather small and unremarkable fossil whale - at 11 feet, it was less than half the size of today's smallest baleen

Please see *Ancient Whale* on page 5

Busload **from page 1**

Progress Series.

Goldbogen, Pyenson and Shadwick focused on the fin whale *(Balaenoptera physalus)*, a large filter-feeding whale closely related to the blue and humpback whales, all of which are lumped together as rorquals. Up to 88 feet in length, these massive whales – second only to the blue whale in size – are known to feed in a series of lunges, each lasting about six to 10 seconds, in which they fill their mouths with krill-laden ocean water and then strain out the krill.

All of this happens underwater, Pyenson said, which makes studying the mechanics of these feeding lunges difficult. In the past decade, however, critter cams attached to whales via suction cups have provided video and audio of feeding whales, while digital tags have provided information on speed, body orientation and swimming strokes. These data, combined with more precise measurements of whale skeletons and baleen obtained from museum specimens, allowed the biologists to estimate the amount of water engulfed in a single lunge: 60 to 82 cubic meters (2,100 to 2,900 cubic feet) for a 20-meter (66-foot) adult fin whale.

They also calculated the energy required to make these open-mouthed lunges through the water, and concluded that the high cost of lunging is a primary limitation on the whale's ability to stay under water, and thus dive deep. According to Goldbogen, large whales should theoretically be able to stay underwater longer than smaller whales, yet fins and blues typically dive for only seven minutes, much shorter than the predicted time.

"The lunge creates an incredible amount of drag and essentially stops the whale dead in the water," Goldbogen said. "So any subsequent movement requires an acceleration from rest, which comes at a high energetic cost."

Because fin whales often lunge seven times per dive, such feeding behavior could rapidly deplete a whale's oxygen and require it to resurface before more feeding, Goldbogen said. Each mouthful, however, can bring around 25 pounds of krill, which means a whale could meet its daily energy requirements in about four hours of hunting.

"The ecological and evolutionary benefits of lunge feeding seem to outweigh the energetic costs of the lunge," Pyenson said, noting that the advent of lunge feeding seems to have favored the evolution of the world's largest living creatures. "But it's an idea that needs further testing."

The research was funded in part by the Remington Kellogg Fund of the UC Museum of Paleontology, while the whales' digital tags were provided by the U.S. Navy.

Hunting **from page 3**

"Humpback whales in our research area are rapidly recovering," said fisheries spokesman Hideki Moronuki.

"Taking 50 humpbacks from a population of tens of thousands will have no significant impact whatsoever."

Mr. Moronuki said killing whales allowed marine biologists to study their internal organs.

Meat from Japan's scientific catch is sold commercially but Japanese officials deny that the mission plans to make a profit.

Tokyo argues that whaling is an ancient Japanese tradition, and has pushed unsuccessfully at the International Whaling Commission to reverse the 1986 moratorium on commercial whaling.

Environmentalists say Japan's research program is a pretext for keeping the whaling industry alive.

http://news.bbc.co.uk/2/hi/asia-pacific/7099720.stm

Ancient Whale **from page 3**

whales. The bones . . . were displayed at Long Marine Laboratory in Santa Cruz until the lab donated the partially articulated skeleton to the Museum of Paleontology in 2005.

As Pyenson prepared it for the museum's collection, however, he noticed small clams in the nooks and crannies of the skull. He found 21 clams in all, each less than a centimeter in length, or two-fifths of an inch, plus one snail. Most of these organisms were on the skull, but some were nestled in the vertebrae. Haasl, a mollusk expert, thought the clams might be similar to those that cluster around whale falls today and that are able to extract energy from chemicals in bones with the help of specialized symbiotic bacteria. At whale fall depths of more than 1,000 meters, there is no light for photosynthesis.

Based on the shape of the fossil clam shells attached to the whale skeleton, Pyenson and Haasl determined that they belong to the same group of mollusks whose living relatives are chemosynthetic, confirming their initial hypothesis that this was a whale fall. A visit by Pyenson and Haasl to Año Nuevo Island in January 2007 showed that the whale came from 15 million-year-old sediments, the Monterey Formation, making the Año Nuevo find much younger than most fossil whale falls discovered around the globe, the oldest of which date from 40 million years ago, Pyenson said.

Whale falls were unknown to science until 1989, when the first example of a deep-sea community living on recently deceased whale carcasses was reported from southern California.

"The ocean floor is pretty much a desert until you get a whole whale carcass sinking to the bottom," Pyenson said. "We don't know how these creatures know to colonize it. Are they ever-present on the sea floor waiting for an animal to fall? But when the whale carcass hits, it forms this island refuge of high nutrient levels that can sustain an undersea community, some scientists calculate, for decades."

Over the past 18 years, more whale falls have been found around the world, and paleontologists have found examples in the fossil record as well. Most fossil examples, however, consist of isolated bones adjacent to deep-sea mollusks, Pyenson said. Little is known about the size or identity of the whale host.

In contrast, the Año Nuevo skeleton was unusually complete and hosted multiple mollusks. It also was small, which suggested to Pyenson that these specialized deep-sea communities didn't need large whale carcasses to evolve. Previous researchers had hypothesized that whale-fall communities evolved with the origin of large baleen whales, such as blue whales, and oil-rich bones. Pyenson and Haasl proposed instead that the oil content of the whale's bones was the more crucial factor.

"What we have are relatives of modern chemosynthetic clams associated directly with the skeleton of a tiny, tiny whale, smaller than any other known from modern whale falls," Pyenson said. "That tells us that you don't need very large whales to sustain a whale fall, but what you probably need is a really oily skeleton."

Because they are more buoyant, oil-rich bones are likely one adaptation to allow deep diving, Pyenson said. The Año Nuevo whale fall find puts a lower limit of 11 million years on the origin of oily bones in whales, he added.

http://www.berkeley.edu/news/media/releases/2007/09/13_whalefall.shtml

SIGHTINGS compiled by

Monterey Bay Whale Watch

For updates see www.gowhales.com/sighting.htm

12/17	5	Humpback Whales
12/16	200	Pacific White-sided Dolphins
12/9	2	Humpback Whales
	4	Killer Whales
	2	Dall's Porpoise
12/3	4	Humpback Whales
	500	California Sea Lions
12/2	4	Humpback Whales
12/1	4	Humpback Whales
	5	Killer Whales
11/30	1	Humpback Whale
	100	Risso's Dolphins
11/29	2	Humpback Whales
	500	Risso's Dolphins
		Gigantic swarm of Jellies
	1	Black-footed Albatross
11/27	2	Humpback Whales
11/26		Gigantic swarm of Jellies
11/25	2	Humpback Whales
	10	Risso's Dolphins
11/24	2	Humpback Whales
11/23	2	Humpback Whales
	7	Killer Whales
11/21	2	Humpback Whales
11/20	3	Humpback Whales
11/19	4	Humpback Whales
11/18 p.m.	4	Humpback Whales
11/18 a.m.	2	Humpback Whales
11/17 p.m.	4	Humpback Whales
11/17 a.m.	70	Risso's Dolphins
11/16 p.m.	3	Humpback Whales
11/16 a.m.	1	Humpback Whale
	7	Killer Whales
	400	Risso's Dolphins
	10	Northern Right Whale Dolphins
	20	Dall's Porpoise
11/15	6	Humpback Whales
	12	Risso's Dolphins
	5	Dall's Porpoise
11/12 p.m.	2	Humpback Whales
11/12 a.m	15	Dall's Porpoise
	3	Humpback Whales
	10	Northern Right Whale Dolphins
11/11		No trip, poor weather
11/10 p.m.	2	Humpback Whales
	10	Risso's Dolphins
11/10 a.m.	5	Humpback Whales
	60	Risso's Dolphins
	7	Dall's Porpoise
11/9	6	Humpback Whales
	8	Dall's Porpoise
11/7	2	Humpback Whales
	40	Risso's Dolphins
	20	Dall's Porpoise
11/6	5	Humpback Whales
	25	Pacific White-sided Dolphins
	2	Long-beaked Common Dolphins
	100	Risso's Dolphins
11/5 p.m.	5	Humpback Whales
	30	Risso's Dolphins
11/5 a.m.	7	Humpback Whales
	10	Dall's Porpoise
11/4 p.m.	2	Humpback Whales
11/4 a.m.	2	Humpback Whales
11/3 p.m.	4	Humpback Whales
	20	Pacific White-sided Dolphins
	2	Long-beaked Common Dolphins
	200	Risso's Dolphins
	50	Northern Right Whale Dolphins
11/3 a.m.	5	Humpback Whales
	25	Pacific White-sided Dolphins
	300	Risso's Dolphins
11/2 p.m.	2	Humpback Whales
11/2 a.m.	10	Humpback Whales
	20	Risso's Dolphins
11/1	11	Humpback Whales
	20	Dall's Porpoise

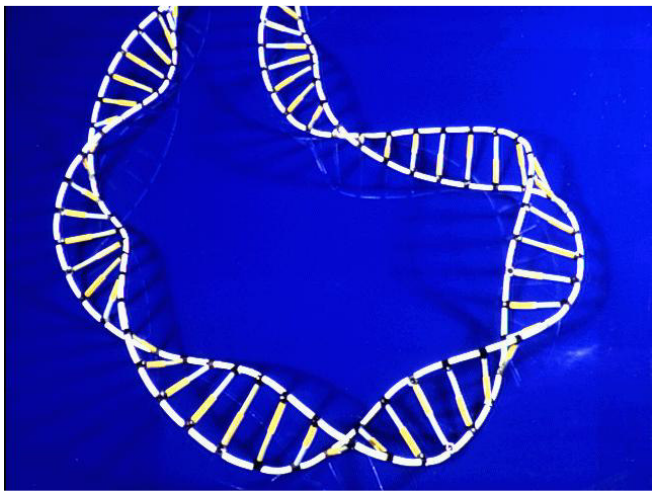
Genetics from page 2

gray whales," recounted lead author S. Elizabeth Alter, a Stanford researcher. "But we don't know exactly how many there were before whaling took its toll." The new research measures the amount of genetic variation in current gray whales across ten different sections of their genome, and back calculates the long-term population size based on new measurement of the mutation rate of these gene segments.

Steve Palumbi, the Harold A. Miller Professor in Marine Sciences at Stanford's Hopkins Marine Station, explained, "Our survey uncovers too much variation for a population of 22,000. The overabundance of genetic variation suggests a much larger population in past centuries." The study uses computer-based genetic simulations to show that the level of genetic variation is instead more likely to be from a past population of 76,000 to 118,000 animals (with an average of 96,000). Such a vastly reduced population of gray whales has likely exerted large changes in Pacific ocean ecosystems. Unique among whales, the gray bulldozes the oceans, digging troughs through the sea floor for food. In the process, they resuspend ocean sediments bring food to the surface. "A population of 96,000 gray whales would have resuspended 12 times more sediment each year than the biggest river in the Arctic, the Yukon," said Alter, "and would have played a critical role in the ecology of the Bering Sea."

Other species may have felt the loss of whales as well. "The feeding plumes of gray whales are foraging grounds for Arctic seabirds," Palumbi said. "96,000 gray whales would have helped feed over a million seabirds a year."

The research also raises questions about how many whales the current oceans can now support-- and whether the future of whales, even if



whaling is limited, may be reduced by new problems in the guise of oceanic overfishing and global climate change. "Despite our best efforts," Palumbi said, "these genetic results suggest gray whales have not fully recovered from whaling. They might be telling us that whales now face a new threat - from changes to the oceans that are limiting their recovery."

"Decades ago, whales were the first creatures to tell us that we were overfishing the oceans," Palumbi concluded. "Maybe now they trying to tell us the oceans are in deeper trouble."

This research wase published September 10 in the Proceedings of the National Academy of Sciences.

Adapted from materials provided by SeaWeb.

http://marineanimalnews.blogspot.com/2007/11/gray-whales-fraction-of-historic-levels.html

American Cetacean Society Membership Application
Chapter#24

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Renewal ___

Name _____

Address_____Email_____

City, State,
Zip_____

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Make checks payable to: ACS/Monterey Bay Chapter
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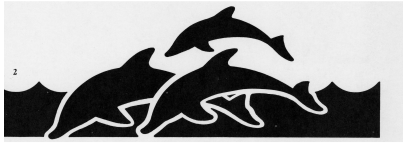

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February 2008

SOUNDINGS

American Cetacean Society-Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950 www.starrsites.com/acsmb

February Meeting

Monthly meeting at Hopkins Marine Station, Lecture Hall, Boat Works Building (Across from the American Tin Cannery Outlet Stores)

Meeting is open to the Public

Date: Thursday, Feb. 28, 2008

Time: 7:30 PM.
PLEASE JOIN US AT 7:00 FOR REFRESHMENTS

Speaker: Selena McMillan, Marine Ecologist and Master Degree Candidate, Moss Landing Marine Laboratories

Title: The Effects of the snail species, Tegula brunnea, on the giant kelp, Macrocystis pyrifera, in Central California.

The kelp forests of the Central Coast of California and along the Monterey Peninsula in particular are significant factors contributing to the overall richness and diversity of marine life in the associated waters. As a primary producer Giant Kelp is part of the foundation of many food systems. As a climax species it defines a habitat which supports essential life functions for vertebrates and invertebrates alike.

Our speaker this month, Selena McMillan, will speak about the relationship between the primary producer, giant kelp, and one of its consumers, the brown turban snail. While much has been said about abalone and urchin grazing on Giant Kelp Selena's research focuses on the most abundant kelp forest herbivore in Central California. Her project is unique in that it represents first study of grazing on the entire Giant Kelp sporophyte that has been done in Central California.

Selena is a Master Degree Candidate at Moss Landing Marine Labs. Her advisor, Dr. Michael Graham, spoke to the Monterey Chapter last year. As a marine ecologist Selena has a particular interest in the trophic relationship between primary producers and their consumers and the effects this relationship has on the overall dynamics of the kelp forest community.

Please join us and learn more about the Giant Kelp Forest and what goes on in that very important coastal habitat.

INSIDE THIS ISSUE

Calendar

Jan. 19, the day of our fundraiser, was a near-perfect whale watching day, with bright sunshine and flat seas. Contributing a total of $900 to our local chapter, about 50 attendees were treated to sightings that included 8 gray whales, 200 CA sea lions, 4 S. sea otters, 4 N. fulmars, 2 pink-footed shearwaters, 40 brown pelicans, 6 loons, 15-20 pigeon guillemots, 15-20 common murres, and 1000's of sea nettles.

Science in Action
Thursday February 21, 2008 7PM
Investigations of the recent Blue Whale Deaths in So Cal Santa Barbara Museum of Natural History

Moss Landing Marine Laboratory Lecture
Skunks of the Sea? The composition and function of Pygmy Sperm Whale "ink"
Friday, Feb. 22, 2008 4PM

Pacific Seabird Group 35th Annual Meeting
Feb.27-March 2, 2008
Blaine, Washington

Sanctuary Currents Symposium
March 3, 2008 8:30AM-3PM
CSUMB

Marine Mammal Accoustics Monitoring in the Channel Islands
John Hildebrand
Tuesday, March 7, 2008 7PM
Santa Barbara Museum of Natural History

11th Annual Pt. Mugu State Park Whale Festival
March 9, 2008
Sycamore Cove, Malibu, CA

European Cetacean Society
22nd Annual Conference
Egmund een Zee Netherlands 10-12 March 2008 Marine Mammals in Time Past, Present, and the Future

16th International Meeting for the Study of Marine Mammals
SOMEMMA 2008
Ensenada, Baja California May 2008

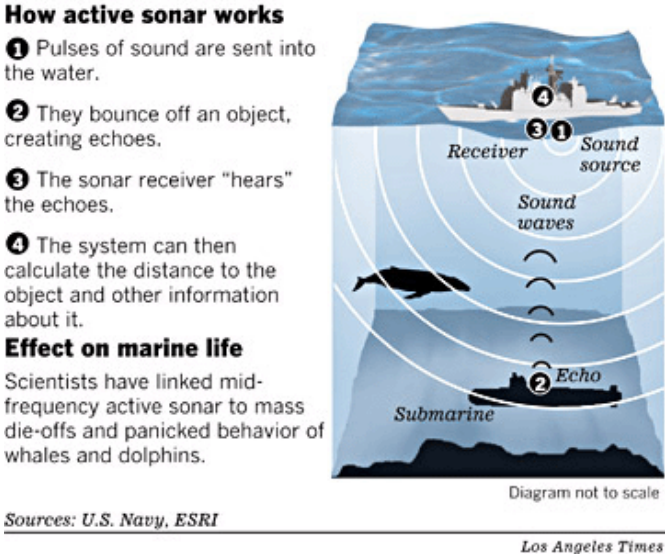
Judge rejects Navy request for sonar training exemption

Ruling upholds court-ordered protections for whales and dolphins.

By Kenneth R. Weiss
Los Angeles Times Staff Writer
February 5, 2008

A federal district judge in Los Angeles on Monday rejected the Bush administration's attempt to exempt Navy sonar training from key environmental laws, ruling that there's no real emergency to justify overruling court-ordered protections for whales and dolphins.

The 36-page order issued late Monday means the Navy will have to follow Cooper's previous injunction forbidding the use of powerful submarine-detecting sonar in areas where whales are abundant, such as within 12 nautical miles of the coast and in the waters between Santa Catalina and San Clemente islands.



That January order also will require the Navy to shut down sonar when whales or other marine mammals are spotted within 2,200 yards of vessels or under certain sea conditions that allow the powerful sonic blasts to travel farther than usual. This type of sonar has been linked to panicked behavior and mass deaths of whales in the Bahamas, the Canary Islands and elsewhere, although never off Southern California.

"We are aware of the ruling and reviewing it," said Capt. Jeff Davis, a Navy spokesman at the Pentagon. He declined to comment further, including whether the Navy will appeal.

Peter Douglas, executive director of the California Coastal Commission, said the federal courts have backed up the commission's assertion that the Navy can implement needed safeguards for marine mammals without compromising its upcoming training missions.

> . . .THE NAVY HAD NO REAL EMERGENCY ON ITS HANDS. THE MOVE TO INVOKE THESE ALTERNATIVE ARRANGEMENTS . . . APPEARED TO BE AN ATTEMPT TO GET AROUND THE LAW . . .

"I don't know what it's going to take for the Navy to get it," Douglas said. "The courts have said over and over that the Navy must follow the law."

The Navy's 3rd Fleet, based in San Diego, last week concluded training exercises designed to certify the USS Abraham Lincoln and its compliment of ships as combat-ready before the strike group is dispatched to the Persian Gulf in March.

The Navy maintains that the lives of its sailors depend on being properly trained to detect vessel operated by China, Iran, North Korea and other potentially hostile nations.

Last month, Bush and the White House Council on Environmental Quality sought to exempt these training exercises in Southern California waters, saying they were a matter of national security and that exempting the exercises from environmental laws was in the "paramount interest" of the United States. To get around one law, the National Environmental Policy Act, the White House approved "alternative arrangements" for the Navy because it said "emergency circumstances" prevented normal compliance with the law.

After reviewing the law and regulations, Cooper concluded that the Navy had no real emergency on its hands. The move to invoke these alternative arrangements, she wrote, appeared to be an attempt to get around the law after more than 10 months of litigation and losing several court battles."The Navy's current 'emergency' is simply a creature of its own making, i.e., its failure to prepare adequate environmental documentation in a timely fashion," Cooper wrote.

Joel Reynolds, a senior attorney with the Natural Resources Defense Council, applauded the ruling.

"It properly rejected the president's attempted end run around the will of Congress and an order of the federal court," said Reynolds, who represents a consortium of conservation groups that brought the original court challenge. "The court confirms that we don't have an imperial presidency in this country."

Scientists track down the whale's walking ancestor

From Times Online
Mike Henderson, December 19, 2007

A small deer-like mammal about the size of a modern fox or racoon was the ancestor of whales and dolphins, according to research that fills a missing link in their evolutionary history.

The creature, indohyus, which lived in what is now India around 48 million years ago, may have been the land animal that first took to the water to escape predators, leading ultimately to the evolution of the cetaceans - the order that includes whales, dolphins and porpoises.

While it had long been understood that cetaceans are mammals that had forerunners that lived on land, and a series of intermediate fossils have been found, scientists had not previously identified a species from the era in which cetacean ancestors took up an aquatic lifestyle.

A new analysis of fossils belonging to indohyus has now filled this important evolutionary gap. Details of its anatomy have shown that while it belongs to a terrestrial group called the raoellids, it spent much of its time in water.

Further similarities with other intermediate cetacean fossils suggest that either indohyus or something like it was probably the ancestor of modern whales and dolphins, scientists said.

As indohyus was a herbivore, the new research also challenges a standard view that as whales are carnivorous, they are most likely to be descended from predatory land ancestors which moved to the water to feed on fish.

"Clearly, this is not the case," said Hans Thewissen, of Northeastern Ohio Universities, who led the research. "Indohyus is a plant-eater, and already is aquatic. Apparently the dietary shift to hunting animals, as modern whales do, came later than the habitat shift to the water."

The small mammal's aquatic lifestyle has been inferred from an examination of its bones, which have a much thicker outer layer than is usual for land animals. It is, however, found in modern mammals that are largely aquatic, such as the hippopotamus.

The hippo is also known from DNA evidence to be the closest relative of cetaceans still living today, though as it is found in the fossil record only from 35 million years ago it is not a candidate for being a direct ancestor.

Further evidence for aquatic adaptation comes from indohyus's teeth, which have a similar ratio of oxygen isotopes to modern animals that live principally in water. Details of the discovery are published in the journal Nature.

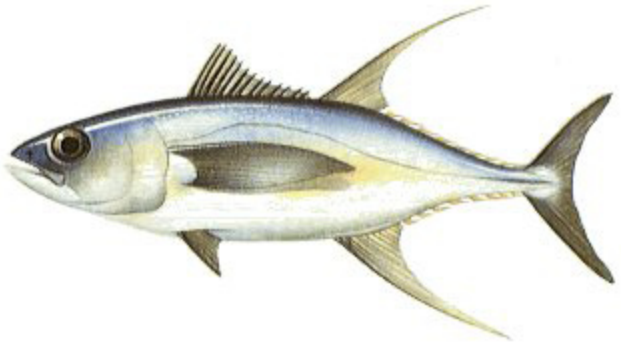
Dr. Thewissen said that while it seems odd that a mammal similar to a deer might have lived mainly in water, there is a modern herbivore that follows just such a lifestyle. The African mouse-deer, also known as the chevotain, is known to jump into water when in danger from predators.

While the chevotain is not closely related to whales, its behavior suggests that cetacean ancestors might first have taken to the water to escape predators, before adapting to a mainly aquatic lifestyle.

Dr. Thewissen's previous research has established that whales and dolphins are evolved from a group of land mammals known as the artiodactyls - the even-toed ungulates that include cattle, pigs and camels.

In 1994, his team discovered Ambulocetus natans, an amphibious whale that was a later ancestor of cetaceans, and in 2001 it identified Pakicetus attocki, the oldest known true whale. Nothing, however, was previously known about the first artiodactyls to take to the water.

Walt Horton, vice-president for research at Northeastern Ohio Universities, said: "This remarkable research demonstrates that the study of the structure and composition of fossil bones can tell us about how the skeleton of whales and, by extension, other mammals like humans, interacts with the environment and changes over time."



Until All the Fish Are Gone

New York Times Editorial
January 21, 2008

Scientists have been warning for years that overfishing is degrading the health of the oceans and destroying the fish species on which much of humanity depends for jobs and food. Even so, it would be hard to frame the problem more dramatically than two recent articles in The Times detailing the disastrous environmental, economic and human consequences of often illegal industrial fishing.

Sharon LaFraniere showed how mechanized fishing fleets from the European Union and nations like China and Russia — usually with the complicity of local governments — have nearly picked clean the oceans off Senegal and other northwest African countries. This has ruined coastal economies and added to the surge of suddenly unemployed migrants who brave the high seas in wooden boats seeking a new life in Europe, where they are often not welcome.

The second article, by Elisabeth Rosenthal, focused on Europe's insatiable appetite for fish — it is now the world's largest consumer. Having overfished its own waters of popular species like tuna, swordfish and cod, Europe now imports 60 percent of what it consumes. Of that, up to half is contraband, fish caught and shipped in violation of government quotas and treaties.

The industry, meanwhile, is organized to evade serious regulation. Big factory ships from places like Europe, China, Korea and Japan stay at sea for years at a time — fueling, changing crews, unloading their catch on refrigerated vessels. The catch then enters European markets through the Canary Islands and other ports where inspection is minimal. After that, retail-

ers and consumers neither ask nor care where the fish came from, or whether, years from now, there will be any fish at all.

From time to time, international bodies try to do something to slow overfishing. The United Nations banned huge drift nets in the 1990s, and recently asked its members to halt bottom trawling, a particularly ruthless form of industrial fishing, on the high seas. Last fall, the European Union banned fishing for bluefin tuna in the eastern Atlantic and Mediterranean, where bluefin have been decimated.

The institution with the most potential leverage is the World Trade Organization. Most of the world's fishing fleets receive heavy government subsidies for boat building, equipment and fuel, America's fleet less so than others. Without these subsidies, which amount to about $35 billion annually, fleets would shrink in size and many destructive practices like bottom trawling would become uneconomic.

The W.T.O. has never had a reputation for environmental zeal. But knowing that healthy fisheries are important to world trade and development, the group has begun negotiating new trade rules aimed at reducing subsidies. It produced a promising draft in late November, but there is no fixed schedule for a final agreement.

The world needs such an agreement, and soon. Many fish species may soon be so depleted that they will no longer be able to reproduce themselves. As 125 of the world's most respected scientists warned in a letter to the W.T.O. last year, the world is at a crossroads. One road leads to tremendously diminished marine life. The other leads to oceans again teeming with abundance. The W.T.O. can help

Greenpeace Online Breaking News: Activists Confront Whalers

January 22, 2008

For eleven days, we've been chasing the Japanese whaling factory ship Nisshin Maru through Antarctic waters. Every day they've spent trying to outrun us has been a safe day for whales. In fact, we estimate that by shutting down the whaling operations, we've saved as many as 82 whales through our efforts.

But today, the Nisshin Maru engaged in a different type of illegal activity, and we were there to stop it. It attempted to refuel in Antarctic Treaty waters. The Panamanian flagged ship Oriental Bluebird arrived on the scene, in an effort to refuel the fleet and take on packaged whale meat, processed in the weeks before we located the fleet. Refueling in the Antarctic is dangerous and a serious threat to the Antarctic environment which is recognized internationally as a specially protected area.

We immediately launched our inflatable boats, including mine. We steered a course between the Nisshin Maru and Oriental Bluebird. The Esperanza warned the vessels of our presence, but they continued to maneuver together, essentially trapping us between the two huge ships.

SIGHTINGS compiled by Monterey Bay Whale Watch

For updates see www.gowhales.com/sighting.htm

(breaks in days due to bad weather trip cancellations)

2/2 p.m.	40	Orcas
	2	Gray Whales
2/2 a.m.	35	Gray Whales
	800	Risso's Dolphins
2/1 a.m.	28	Gray Whales
	1	Humpback Whale
	500	Risso's Dolphins
1/31 p.m.	37	Gray Whales
1/31 a.m.	26	Gray Whales
	130	Risso's Dolphins
1/30	22	Gray Whales
1/29 a.m.	45	Gray Whales
1/29 a.m.	45	Gray Whales
1/28 p.m.	30	Gray Whales
1/28 a.m.	10	Gray Whales
1/27a.m.	80	Orcas-S. residents
	4	Gray Whales
	25	Risso's Dolphins
1/26 p.m.	15	Gray Whales
1/26 a.m.	12	Gray Whales
1/23	36	Gray Whales
	1	Humpback Whale
	5	Orcas
1/22 p.m.	46	Gray Whales
	15	Long-beaked Common Dolphins
1/21 p.m.	65	Gray Whales
1/21 a.m.	48	Gray Whales
1/20 p.m.	9	Gray Whales
1/20 p.m.	28	Gray Whales
	30	Risso's Dolphins
1/19 p.m.	7	Gray Whales
1/19 a.m.	27	Gray Whales
1/18 p.m.	30	Gray Whales
	25	Risso's Dolphins
1/18 a.m.	4	Gray Whales
1/17	12	Gray Whales
1/16	10	Gary Whales
	25	Risso's Dolphins
1/15	6	Gray Whales
1/14	12	Gray Whales
1/13	9	Gray Whales
1/12 p.m.	26	Gray Whales
1/12 a.m.	30	Gray Whales
1/11 p.m.	17	Gray Whales
1/11 a.m.	15	Gray Whales
1/10 p.m.	14	Gray Whales
1/10 a.m.	2	Gray Whales
1/9 p.m.	6	Gray Whales
1/9 a.m.	12	Gray Whales
1/7 p.m.	5	Gray Whales
1/7 a.m.	7	Gray Whales
1/6	6	Gray Whales
1/3 p.m.	90	Risso's Dolphins
1/3 a.m.	120	Risso's Dolphins
1/1 p.m.	7	Gray Whales
	2500	Pacific White-sided Dolphins
1/1 a.m.	3	Gray Whales
	1200	Pacific White-sided Dolphins
12/31 p.m.	3	Gray Whales
12/31 a.m.	8	Gray Whales
	60	Risso's Dolphins
12/30	3	Gray Whales
12/29	6	Gray Whales
12/28 p.m.	6	Gray Whales
12/28 a.m.	5	Gray Whales
12/27 a.m.	5	Gray Whales
12/26	1	Humpback Whale
	1500	Pacific White-sided Dolphins
12/21	3	Gray Whales
	30	Risso's Dolphins
12/16	2000	Pacific White-sided Dolphins
12/9	2	Humpback Whales
	4	Killer Whales
	2	Dall's Porpoises
12/3	4	Humpback Whales
	500	CA Sea Lions
12/2	4	Humpback Whales
12/1	4	Humpback Whales
	5	Orcas

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March 2008

SOUNDINGS

American Cetacean Society-Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950 www.starrsites.com/acsmb

March Meeting

Monthly meeting at Hopkins Marine Station, Lecture Hall, Boat Works Building (Across from the American Tin Cannery Outlet Stores)

Meeting is open to the public

Date: Thursday, Mar. 27, 2008

Time: 7:30 PM.
PLEASE JOIN US AT 7:00
FOR REFRESHMENTS

Speaker: Laurie Hall, Masters Degree Candidate, Moss Landing Marine Laboratories

Subject: Dispersal Patterns and Social Structure of Marbled Murrelets (Brachyramphus marmoratus) in Central California

The Marbled Murrelet is an interesting member of the family Alcidae, a family of birds with several members who frequent Monterey Bay. Other members we might see here are Murres, the Pigeon Guillemot, other Murrelets, Auklets and Puffins.

Nesting high in the old growth conifers, feeding over the continental shelf and traveling in small numbers has made these enigmatic seabirds difficult to study. In fact, this species was one of the last North American species to reveal its nesting sites.

The current proposal is to remove this seabird from the federal threatened species list in spite of the fact that this population is challenged by logging, oil spills, gillnetting, declines in prey availability and increases in nesting area predators. The data collected in our speaker's study may well provide new information that could lead to reconsideration of the proposal to remove the Marbled Murrelet from this listing.

Laurie Hall is a Masters Candidate at Moss Landing Marine Labs with an anticipated graduation date this spring. She received her B.S. in Marine Science from Southampton College of Long Island University in New York. Among her awards, honors and grants, Laurie received the Baldridge Award from our Chapter in 2006 for her work with Leatherbacks.

Please join us to find out more about Marbled Murrelets and the fight to effectively manage this seabird in the face of its many challenges.

INSIDE THIS ISSUE

Calendar

European Cetacean Society
22nd Annual Conference
Egmund een Zee Netherlands 10-12
March 2008 Marine Mammals in
Time Past, Present, and the Future

Marine Science 2008 Youth Camp
Monday-Friday March 24-28
2008 900am 400pm
Seymour Center/Long Ma-
rine Lab Santa Cruz, Ca
Children 9-11 Cost $450.00-$510.00
Field Trips include; Ano Nuevo,tidepooling

Sanctuary Currents Symposium
April 5, 2008 8:30AM-3PM
CSUMB

16th International Meeting for
the Study of Marine Mammals
SOMEMMA 2008
Ensenada, Baja California May 2008

May 3 The Sea and Point Lobos
Point Lobos State Reserve, CA
Visit www.pointobos.org for more info

Cooking for Solutions at the
Monterey Bay Aquarium
Friday May 16-Sat May 17th 2008
For Info Call 831-647-6886

ACS National Fundraiser:
Humpback Whale Adventure
Saturday May 17
Aboard the 78 foot Condor Express
Time-800am-400pm Cost $80.00
ACS Members; $90.00 non members
Trip departs from Sea Landng in Santa
Barbara For info call-310-548-6279

59th Tuna Conference
Lake Arrowhead, California
May 19th-22, 2008
Contact Arnie Allen at
858-546-7128 for info

Marine Mammal Science Sum-
mer Courses at UC Santa Cruz
Session 1 June 23-July 25 2008
Biology of Marine Mammals
Time and Day's to be announced.

Session 2 Ocean Science 158
Ecology and Conserva
tion of Marine Birds and Mammals
Location-Long Marine Lab
Instructor-Breck Tyler
Time and Day's to be announced

ACS L.A. Chapter Blue Whale Fundraiser
Saturday July 12th 2008 800am-400pm
Aboard the 78ft Condor Ex-
press Santa Barbara,Ca
Cost is $80.00 ACS Members;
$90.0 non-ACS Members
Trip Departs from Sea Landing in Santa
Barbara, CA For Info Call-310-548-6279

MBARI Open House
Saturday July 19th
Info at openhouse@mbari.org

Notable Books

Marine Mammals of the World; A Com-
prehensive Guide to Their Identification.
2007 Academic Press. Written by Rob-
ert Pitman and Thomas Jefferson.

Whales and Dolphins of the North
American Pacific; from WILD Guides.
The most comprehensive field guide to
marine mammals of the North Ameri-
can Pacific covering 38 species of ce-
taceans,6 species of pinnipeds and
the sea otter Proceeds benefit ACS

The Unnatural History of the
SEA; 2007 Island Press
Written by Callum Roberts, Pro-
fessor of marine conserva-
tion at the University of York.

Human Shadows on the Seas

By ANDREW C. REVKIN
NYT: February 26, 2008

In 1980, after college, I joined the crew of a sailboat partway through a circumnavigation of the globe. Becalmed and roasting one day during a 21-day crossing of the western Indian Ocean, several of us dived over the side. Within a few swimming strokes, the bobbing hull seemed a toy over my shoulder as I glanced back through my diving mask. Below me, my shadow and the boat's dwindled to the vanishing point in the two-mile-deep water. Human activity seemed nothing when set against the sea itself.

Just a few weeks later, on an uninhabited island in a remote part of the Red Sea, I was proved wrong. The shore above the tide line was covered with old light bulbs, apparently tossed from the endless parade of ships over the years.

Now scientists are building the first worldwide portrait of such dispersed human impacts on the oceans, revealing a planet-spanning mix of depleted resources, degraded ecosystems and disruptive biological blending as species are moved around the globe by accident and intent.

A paper in the Feb. 15 issue of the journal Science is the first effort to map 17 kinds of human ocean impacts like organic pollution, including agricultural runoff and sewage; damage from bottom-scraping trawls; and intensive traditional fishing along coral reefs.

About 40 percent of ocean areas are strongly affected, and just 4 percent pristine, according to the review. Polar seas are in the pristine category, but poised for change. Some human impacts are familiar, like damage to coral reefs and mangrove forests through direct actions like construction and subtler ones like the loss of certain fish that shape ecosystems.

Others were a surprise, said Benjamin S. Halpern, the lead author and a scientist at the National Center for Ecological Analysis and Synthesis in Santa Barbara, Calif. He said continental shelves and slopes proved to be the most heavily affected areas, particularly along densely populated coasts.

The most widespread human fingerprint is a slow drop in the pH of surface waters around the world as a portion of the billions of tons of carbon dioxide added to the atmosphere from fuel and forest burning each year is absorbed in water, where it forms carbonic acid.

That progressive shift in ocean chemistry could eventually disrupt shell-forming plankton and reef-building species, particularly where other impacts, including rising temperatures from human-caused global warming, create simultaneous stresses, many marine biologists say.

"I study this stuff all the time and didn't expect the impacts to be as pervasive as we found," Dr. Halpern said.

The review provides a baseline necessary for tracking further shifts, he said. It also identifies some unanticipated trouble spots, similar to terrestrial biodiversity "hot spots" that environmental groups have identified over the years.

Such an analysis is long overdue, many marine biologists said in interviews. People's conservation concerns have mainly focused on land, even though the seas cover two-thirds of the planet and are a vital source of food and pleasure.

Sylvia Earle, an oceanographer and National Geographic Society "explorer in residence," said people care only about what they know. A big question now is whether such surveys are providing too little knowledge, too late.

"We learned more about the nature of the ocean in the latter part of the 20th century than during all preceding human history," Dr. Earle said. "But we also lost more."

A separate mapping effort published

this month focused on introduced invasive species and found that 84 percent of the world's coastal waters were affected, with Arctic waters next in line as shipping there grows in a warming world.

More than half the introduced species that take hold are having deleterious effects, said Jennifer Molnar, a conservation scientist at the Nature Conservancy who led that study, which was published in the journal Frontiers in Ecology and the Environment.

The House of Representatives is considering legislation aimed at tightening controls on the ballast water that stabilizes freighters when they are not full. Ballast water and organisms clinging to hulls and anchors have been the source of many costly marine invasions, including the introduction of zebra mussels to American waters and the comb jelly, a small jellyfish, to the Black Sea.

That species exploded after its accidental introduction in 1993, vacuuming up plankton until it made up 90 percent of the sea's life by weight, causing fisheries to collapse. Its population there has sincecrashed, partly because of the arrival of a species of jellyfish that eats the established invader.

In May, invasive species will be a significant subject at the meeting of the world's nations to assess the progress of the Convention on Biological Diversity.

Even as efforts to gauge human effects intensify, other scientists are simply trying to survey marine species large and small, an enormous task given how little is known about the oceans.

The hub for this work is the Census of Marine Life, a 10-year project initiated under the Alfred P. Sloan Foundation that is scheduled to produce a first synthesis report on marine species in 2010.

More than 2,000 scientists from 81 countries have chipped in, said Michael Feldman of the Consortium for Ocean Leadership, a group in Washington running the global project.

Since 2003, the project has discovered more than 5,300 species, Mr.Feldman said, adding: "We've only been able to formally describe a few hundred so far. They're still discovering things at a rate we don't even know what to do with."

There is a growing sense of urgency among marine researchers in cataloging what is there, what is being threatened and what is already a fading memory.

Recent books, including "The Unnatural History of the Sea" by the marine scientist Callum Roberts, have painted vivid portraits of how much more abundant marine resources were a few generations ago, asituation well known to anyone who has worked in a fishery.

In the 1970s, I worked summers for the Rhode Island marine fisheries agency. At one point, I was tagging lobsters as part of an effort to find ways to revive depleted populations. A crusty old custodian inthe laboratory, Jim Pimentel, reminisced about how different things had been a few decades earlier."We used lobsters for cod bait," Mr. Pimentel said.

Looking ahead, Jane Lubchenco, a marine biologist at Oregon State University, said a wide array of efforts is required to sustain productive, if altered, seas. Among the needed steps, Dr. Lubchenco said, are expanding protected marine areas and curbing pollution, including carbon dioxide.

"We cannot go back in time to some past system," Dr. Lubchenco said. "But we can protect and restore the functioning of today's ecosystems so they can be as healthy, productive and resilient as possible."

Interlopers take hold: Invaders like Pacific oysters, left, and the comb jelly, right, have squeezed out native species in some seas. Photos courtesy L. Madin/Woods Hole Oceanographic Institution

Beaked Whales Actually Hear Through Their Throats

ScienceDaily Feb. 8, 2008

Researchers from San Diego State University and the University of California have been using computer models to mimic the effects of underwater noise on an unusual whale species and have discovered a new pathway for sound entering the head and ears.

Advances in Finite Element Modeling (FEM), Computed tomography (CT) scanning, and computer processing have made it possible to simulate the environment and anatomy of a Cuvier's beaked whale when a sonar signal is sent out or received by the whale.

The research paper is a catalyst for future research that could end years of speculation about the effects of underwater sound on marine mammals.

FEM is a technique borrowed from engineering used, for example, to simulate the effect of an earthquake on a building. By inputting the exact geometry and physical properties of a building the effect of forces such as an earthquake, or in this case noise vibrations, can be accurately predicted.

Dr Cranford of San Diego State University triggered the research into Cuvier's beaked whales almost ten years ago when he undertook the first ever CT scan of a large whale, which provided researchers with the very complex anatomic geometry of a sperm whale's head.

Dr Cranford said, "I think that the methods developed for this research have the potential to revolutionize our understanding of the impact of noise on marine organisms." Since 1968, it has been believed that noise vibrations travel through the thin bony walls of toothed whales' lower jaw and onto the fat body attached to the ear complex. This research shows however that the thin bony walls do not transmit the vibrations. In fact they enter through the throat and then pass to the bony ear complex via a unique fatty channel.

Despite the Cuvier's beaked whale being a rare and little-known specie, Dr Cranford and his team started the work on it because over recent years there have been instances when this type of whale has stranded after exposure to intense sound, making them an ideal starting point for research into underwater communication.

Dolphin dies near sonar site

By Kenneth R. Weiss, Los Angeles Times Staff Writer; February 22, 2008

A deep-diving dolphin died on the beach of the Navy's San Nicolas Island late last month during the final days of naval exercises using a type of sonar that has been linked to fatal injuries of whales and dolphins.

Although researchers have yet to determine a cause of death, a dissection of the northern right whale dolphin's head revealed blood and other fluid in its ears and ear canals. The same symptoms were found in deep-diving whales that washed ashore in the Canary Islands and the Bahamas after military sonar exercises.

Unlike the mass strandings of whales on the Canary Islands in 2002 and the Bahamas in 2000, only the one dolphin washed ashore Jan. 29 on San Nicolas. That occurred just as the Navy's 3rd Fleet in San Diego was wrapping up sonar training that has become the focus of a federal court fight and elicited an effort by President Bush to intervene.

Teri Rowles, lead veterinarian with the National Oceanic and Atmospheric Administration, cautioned against jumping to conclusions until a panel of expert radiologists can review magnetic resonance images of the dolphin's head and federal pathologists can scruti-

nize various tissues for disease, as well as for air and fat bubbles associated with sonar-related injuries.

"At this point, we cannot rule in or rule out sonar or any other kind of intense noise," said Rowles, head of the nation's Marine Mammal Health and Stranding Response Program. "This one is perplexing at this point."

The dolphin death comes at a delicate time for the Navy, which has appealed a federal court order that imposed extra safeguards to protect whales from possible harm caused by mid-frequency active sonar.

"There is no evidence that any type of naval activities caused or contributed to this dolphin's death," said Lt. Mark Walton, a spokesman for the Navy's 3rd Fleet.

In an appeal filed last week, the Navy stated: "During the last 40 years, there has been no documented incidents of harm, injury or death of marine mammals resulting from exposure to [mid-frequency active]sonar in Southern California waters.

Lawyers for the Navy argue that a federal court order has no scientific basis to require the Navy to shut down sonar when marine mammals are spotted within 2,200 yards and to avoid areas along the coast and between some of the Channel Islands that are known for their abundance of marine mammals.

These and other court-imposed conditions, Navy officials said, hamper the ability to train sailors to use sonar to detect quiet-running diesel-electric submarines now operated by Iran, China, North Korea and other potentially hostile nations.

The U.S. 9th Circuit Court of Appeals has promised to rule on the Navy's latest appeal by March 3, so the Navy will have time to petition the U.S. Supreme Court before its next two rounds of sonar testing scheduled to begin in March.

Navy officials first spotted the right whale dolphin washed up on the north end of San Nicolas Island on Jan. 29, as the aircraft carrier Lincoln and its supporting warships were conducting war games to certify that they were prepared to meet threats of all kinds, including submarine attacks, before shipping out to the Persian Gulf in March.

The closest warship using sonar was 62 miles away the previous day and was not part of the exercise, said Capt. Jeff Davis, a Navy spokesman at the Pentagon. The animal first washed ashore alive, and Navy personnel pushed it back into the water several times in an attempt to save it before it died on the beach the next morning. The Navy flew the carcass to Santa Barbara Airport, where curators at the Santa Barbara Museum of Natural History picked it up and performed a necropsy.

The female dolphin, at 6 feet 9 inches long, was a slender 132 pounds but appeared in good shape except for scrapes and scratches from washing up on the rocks, said Michelle Berman, an associate curator at the museum. This type of dolphin, sleek black with no dorsal fin and a white hourglass marking on its belly, had no obvious signs that would indicate a cause of death, she said.

The curators worked all night to perform the necropsy because clues are lost to rapid decomposition. The head was removed and refrigerated, then taken to the nearby Alamo Pintado Equine Medical Center for magnetic resonance imaging.

The initial review, Rowles said, confirmed increased fluid in the ears. "That could be blood; it could be infection or parasites -- those are the three more common causes of fluid in the ears," she said. Or it could be trauma related to sonar.

"The lesions that we have seen to date are consistent to what has been found in whales in the Canary Islands and the Bahamas," Rowles said.

The most telling indications will not come until pathologists can complete microscopic examination of the brain, the ears and other tissues to look for gas or

fat bubbles and related hemorrhaging. That's what showed up in the jaws, ears, brain and kidneys in 10 of 14 beaked whales that died after international naval exercises using mid- frequency sonar.

Scientists in the journal Nature theorized that those deep-diving whales may have panicked and bolted to the surface, causing decompression sickness, similar to the "bends" or air embolisms that can affect human divers. The problem arises when gas bubbles, compressed under the pressure of depth, expand rapidly and tear delicate tissues, like bubbles bursting from a newly popped bottle of champagne.

The microscopic analysis of most tissues should take about a month, Rowles said. It could take as long as a year to examine the ears because the bones must be slowly dissolved in fluid to reveal soft tissues inside.

Rowles expects other lab results within a week that could rule out whether the dolphin was poisoned by a neurotoxin, called domoic acid, produced by certain algae that bloom in California waters.

Joe Cordaro, a wildlife biologist with the National Marine Fisheries Service, said about 20,000 right whale dolphins live in waters off California, Oregon and Washington. Strandings of those animals occur rarely, seldom more than once or twice a year, he said.

Right whale dolphins are social animals, seen gamboling in the waters in pods of hundreds and sometimes thousands. So if the death is linked to sonar, it would be unusual that only one animal washed ashore.

SIGHTINGS compiled by Monterey Bay Whale Watch

For updates see www.gowhales.com/sighting.htm

3/4 p.m.	10	Gray Whales
	12	Dall's Porpoise
3/4 a.m.	5	Gray Whales
3/3 p.m.	11	Gray Whales
3/3 a.m.	12	Gray Whales
	20	Risso's Dolphins
3/2 p.m.	4	Gray Whales
3/2 a.m.	9	Gray Whales
3/1	8	Gray Whales
2/29	6	Gray Whales
2/26	5	Gray Whales
2/25	1	Gray Whale
2/21	18	Gray Whales
2/20	5	Gray Whales
	200	Pacific White-sided Dolphins
	10	Dall's Porpoise
2/19	13	Gray Whales
2/18	6	Gray Whales
2/16	4	Gray Whales
2/15 p.m.	25	Gray Whales
	800	Risso's Dolphins
2/15 a.m.	27	Gray Whales
2/14		No trip
2/13		No trip
2/12	30	Gray Whales
2/11	5	Gray Whales
2/10 p.m.	7	Gray Whales
2/10 a.m.	12	Gray Whales
2/9 p.m.	15	Gray Whales
	35	Risso's Dolphins
2/9 a.m.	30	Gray Whales
2/8	7	Gray Whales
	6	Pacific White-sided Dolphins
	500	Risso's Dolphins
	6	Northern Right Whale Dolphins
2/7	20	Gray Whales
	100	Long-beaked Common Dolphins
	50	Risso's Dolphins
2/6 p.m.	25	Gray Whales
2/6 a.m.	20	Gray Whales
2/5 p.m.	20	Gray Whales
2/5 a.m.	22	Gray Whales
	45	Pacific White-sided Dolphins
	700	Risso's Dolphins
	150	Northern Right Whale Dolphins
2/4	6	Gray Whales

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Soundings

American Cetacean Society- Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950
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April 2008

INSIDE THIS ISSUE

April Meeting

Date: Thursday, April 24, 2008

Time: 7:30 pm Please join us at 7:00 pm for refreshments

Monthly meeting at **Hopkins Marine Station,** Lecture Hall
Boat Works Building (Across from the American Tin Cannery Outlet Stores)

Meeting is open to the Public so Bring A Friend!

SPEAKER: Bernardo Alps
President, Los Angeles Chapter, ACS

Title: The Friendly Whales of Baja

There are few encounters with wildlife that are as inspiring and exciting as having a mother gray whale bring her calf within arm's length while you sit in a skiff half as long as the whale. This is some of the magic one can experience in Laguna San Ignacio in Baja California Sur.

This place is magical in many ways. It sits in the Vizcaino Biosphere Reserve where the desert meets the Pacific Ocean. The lagoon, its tidal flats, islands and mangrove patches serve as critical habitat for many bird species. Green sea turtles and bottlenose dolphins feed in the rich waters. It is no wonder that the local residents are fiercely protective of the lagoon and its resources, especially the gray whales.

Bernardo Alps has visited Laguna San Ignacio 14 times and will share some of his highlights with us in this presentation. While he is employed as a professional photographer he would much prefer photographing wildlife, especially marine mammals.

In addition to being Los Angeles Chapter President of the ACS Bernardo also serves as Trips Chairperson for ACS National.

CALENDAR

April 2008

April 19-20 , 9:00 am-5:00pm
Moss Landing Marine Laboratory Open House. Seminars on Cetaceans, Pinnipeds, Sharks, Seabirds, and more
For Info Call 831.771.4400

April 25, Noon: Searching for Durable Marine Conservation Outcomes
Barry Gold
Hopkins Marine Station
Spring 2008 Lecture Series

May 2008

May 2, Noon: Microbes, Viruses, and the Decline of Coral Reefs
Forest Rohwer, San Diego State Univ.
Hopkins Marine Station
Spring 2008 Lecture

May 3
The Sea and Point Lobos
Point Lobos State Reserve, CA
Visit www.pointlobos.org for more info

May 9, Noon: Phylogeography and Conservation of Coral Reefs
Brian Bowen, Univ. Of Hawaii
Hopkins Marine Station
Spring 2008 Lecture

May 16, Non: Topic TBA
Callum Roberts, Univ. Of York
Hopkins Marine Station

May 16-17 Cooking for Solutions at the Monterey Bay Aquarium
For Info call 831.647.6886

May 17 ACS National Fundraiser
Humpback Whale Adventure
Aboard the 78' Condor Express
8:00 am – 4:00 pm
Cost: ACS member $80.00
Nonmember $90.00
Trip departs from Sea Landing in Santa Barbara
For info Call 310.548.6279

16th International Meeting for the Study of Marine Mammals
SOMEMMA 2008
Ensenada, Baja California

JUNE-JULY 2008

Summer Marine Mammal Courses at Moss Landing Marine Laboratories
The SLEWTHS project in conjunction with CSUMB will offer two classes that in conjunction with an internship will earn students a certificate in Beginning Marine Mammology

BIO 348: Technologies and Theories of Animal Training
July 7-13 Daily 9am-5pm

BIO 347: Working with Marine Mammals
July 21-27 Daily 9am -5pm
For more info Call 831.771.4191

NOTABLE BOOKS

Your Inner Fish-A Journey Into The 3.5 Billion Year History Of The Human Body. By Neil Shubin. Founder Of' Tiktaalik'

Albatross, Petrels And Shearwaters Of The World. 2007 PRINCETON Field Guide. Text And Illustrations by Derek Onley And Paul Scofield.

Leatherback Sea Turtles Followed On 12,700 Mile Migratory Journey Across The Pacific

ScienceDaily (Feb. 19, 2008) — NOAA researchers and their international partners in Indonesia, Papua New Guinea, and the Solomon Islands are using satellite transmitter technology to track the endangered leatherback sea turtle across the Pacific Ocean. Transmitters attached to the carapace of the turtle send signals to satellites providing researchers with information on the animals' geographic location, diving behavior, and sea temperatures.

Recently, a female leatherback sea turtle was tracked for 647 days and 12,744 miles during its journey from a nesting beach of Papua, Indonesia to its foraging area off the Pacific coast of the United States of America.

This international collaborative effort allows researchers to learn what migratory routes and foraging habitat are used by these endangered ambassadors of the sea. Understanding sea turtles' movements is critical to understanding what habitat is important for their survival and recovery and ensuring their protection as they pass through multiple nation's territories and international waters.

Leatherback populations face threats from egg harvesting, fishery bycatch, ingestion of debris, direct harvest, and habitat loss. Satellite tracking technology is one tool allowing NOAA researchers to unlock secrets of the incredible journeys of this species, allowing us to better understand where they go, what threats they might face at sea, and what management efforts will be required to ensure this species' survival. The new technology can be used in all the world's oceans and is being used for other sea turtle and non-sea turtle species research.

Adapted from materials provided by National Oceanic And Atmospheric Administration, via EurekAlert!, a service of AAAS.

Unknown blue whale population discovered off southern Chile

Powered by CDNN - CYBER DIVER News Network
by JEFFREY KOFMAN

Blue whale: By the time hunting blue whales was outlawed in 1966 it is estimated that the population had been reduced by 99 percent, from perhaps half a million to just a few thousand in all the world's oceans.

MELINKA, Chile (17 Mar 2008) — Three scientists stand on a hillside on the remote island of Melinka in Southern Chile. In the distance, across the shimmering waters of the Gulf of Corcovado, are the majestic snow-capped peaks of the Andes mountains.

All three are peering through high-powered binoculars, scanning the horizon methodically. Suddenly, biologist Yacquiline Montecinos spots a spray of water piercing the horizon, six miles or so off shore.

"There ... whale. Blue whale," she says excitedly. Montecinos has seen hundreds of these spouts, but she still gets excited when she finds one. And why not? She is part of a team researching a previously unknown population of blue whales, the biggest mammal on the planet, bigger than the biggest dinosaur. They can be up to 100 feet long and 100 tons.

It is thrilling to see, but it is also serious science.

'We Have Whales'

Over the hill on the water's edge sits the tiny fishing village of Melinka. One of the buildings houses the modest research station of Centro Ballena Azul: The Blue Whale Center, home to 11 scientists who share a passion for the sea. Several have been waiting all morning for a sighting from the team on the hill.
The job is tedious at times, until the radio call comes in that two blue whales have been spotted.

"We have whales," crackles the voice on the radio. Researcher Juan Pablo Torres writes down the details. In a well-rehearsed routine, Torres and two other scientists head for the fishing docks to retrieve their research boat, load up their gear and steer to the waters of the Gulf. Marine Biologist Rodrigo Hucke-Gaete, director of the Blue Whale Center, oversees the

research at the center. When you see him standing in the prow of the center's 20-foot research boat he looks like a modern-day Captain Ahab, but he is not out to kill the whales, he's out to catalogue them.

"I think there are two whales," says Rodrigo Hucke-Gaete as the boat bounces through the waves, "but we'll confirm everything when we're closer."

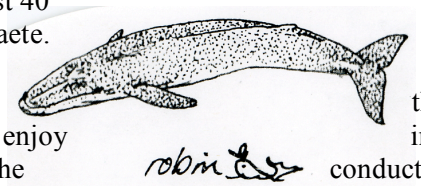
Spotting those spouts at sea level takes a trained eye. "There are two there!" says Hucke-Gaete. It is a spectacular sight: animals so big, moving with such grace. It is almost as if they are swimming in slow motion. "I find it beautiful," said Hucke-Gaete, who has seen hundreds of blue whales in Corcovado, but still gets excited. "It's one of the most beautiful spectacles I could have ever dreamt of. They're amazing." Especially because a century of commercial whaling almost pushed the blue whale to extinction. The slaughter peaked in 1931, when 29,000 were killed in one season. By the time hunting blue whales was outlawed in 1966 it is estimated that the population had been reduced by 99 percent, from perhaps half a million to just a few thousand in all the world's oceans.

"The numbers that were left after the commercial whaling was so low that everybody thought that it was over for the blue whales," says Hucke-Gaete.

Unexpected Discovery

Almost as amazing as these whales themselves is the story of how this population was discovered. In 1997, a group of scientists boarded two ships to comb the 2,500 miles of Chile's pacific coastline and do a count of blue whales. In that entire time, they found just 40 whales "it was bad news," says Hucke-Gaete. But then a small group of those scientists decided to soak up the stunning scenery. They hopped on a cruise ship to enjoy the trip home. That ship passed through the Gulf of Corcovado.

"When they were entering the gulf, they started seeing blue whales," says Hucke-Gaete, his voice filled with excitement as he recounts the unexpected discovery. "And they saw another one, and then they finally saw 60 in less than four hours."



It seemed the scientists had stumbled on a large and unknown population of blue whales, but it wasn't easy to confirm their findings. It took Hucke-Gaete six years to raise the money to come back the Gulf to confirm that what they saw in 1997 wasn't just a one-time occurrence. Each year since 2003 the scientists have been in Corcovado from January to April the Southern Summer and so have the whales. They have learned that the whales come to this vast Gulf to feed and nurse their young. Corcovado is a previously unknown refuge that may help save the species.

"The significance of the place is that this is a place they feed; this is a place that is important to them and not only for the adults, it's for calves," explains Hucke-Gaete. "If we find calves, that means the population is recovering and that carries on a big responsibility for us: we need to take care of this place." Normally whales have to be studied at deep sea and great expense. Corcovado offers a unique opportunity to track the whales close to land for an extended time. Hucke-Gaete says it's difficult to study whales in part "because they spend 90-98 percent below the surface. So it's really, really difficult. It takes lots of time and lots of patience." With meager budgets that are mostly consumed by gas that costs $9 a gallon, the scientists spend their days studying the habits and habitat of the whales, photographing and indexing each whale no two dorsal fins are the same and collecting tiny samples of their skin. The samples, he says, are "enough to tell us what population this whale belongs to, to know the sex of the animal, to identify it genetically like a forensics lab, that we identify these animals."

Large and Loud

They hope to travel to the Museum of Natural History in New York this summer to conduct genetic tests on the samples to see how the Corcovado whales are related to others in the oceans. Blue whales are not just the largest animals on the planet, they are also the loudest. Researcher Susannah Buchan has come all the way from the University of St. Andrews in Scotland to study the sounds these

whales make. Like all the science here it takes extraordinary patience, but what she is recoding and hearing is itself extraordinary.

"They vocalize," Buchan explains. "They do talk to each other. Why exactly, we're not entirely sure." She's also not entirely sure that the sounds she's recorded really are from the blue whale, because they are unlike anything anyone has heard before. Buchan describes it as "sort of like a whistle, like a high whistle." Buchan played some of the sounds for us. At first we heard a very low repetitive sound usually associated with whale, like a jackhammer. Then an extraordinary high sound. "We're very cautious about saying that this is a blue whale vocalization. This is what I have been recording near the whales. But I really can't say if this is blue whale vocalization just because the sound is so high." If the sounds can be confirmed they may help match this population with others like an acoustic DNA. "It is really exciting," says Buchan. "It's fascinating because so little is known about this animal. It astounds me how little is known, how little we know about this area about these animals here but also blue whales all over the world. " If the species is to survive and rebuild its stocks, the Gulf of Corcovado could be critical. But this pristine habitat here that survived almost unscathed through the 20th century is being invaded by industry, in particular salmon farms. Salmon are not native to the Southern Hemisphere, but about 25 years ago Norwegians discovered the cold waters of the South Pacific are ideal for farming salmon from the North Atlantic. Now Chile is about to overtake Norway as the biggest producer of salmon in the world providing 60 percent of the salmon Americans eat. But at huge environmental costs: contaminating the waters with feed and harmful chemicals and spreading disease.

Keeping People, and Whales, Happy

It is not just the whales who are threatened by the salmon invasion. There is concern that the entire fragile eco-system is being destroyed. Which is why the Blue Whale Center, the World Wildlife Fund and others are lobbying the government of Chile to declare the Gulf of Corcovado all 10 million acres of it a Marine Protected Area. CLICK HERE to view a map of the proposed Marine Protected Area. That would allow traditional fishermen and salmon farming to continue, but would restrict growth and strictly monitoring environmental impact. "It's absolutely extraordinary," says Cathy Plume of the World Wildlife Fund as she describes the incredible diversity of the ecosystem here, "we don't even know what's under these waters." The World Wildlife Fund is looking at ways to balance the proposed protected area with the much-needed jobs in this remote region. "If we don't control this area, the salmon industry will continue to grow here. Fishing will continue to grow here and you won't have the whales coming in here anymore, they won't have their food stocks, they won't be bringing their young in. We've got to keep that happening and the way to do that is just to create a marine protected area that's multiple use keep people happy, and keep the whales happy." Not just blue whales but also a population of Humpback Whales. Not nearly as big, but just as breathtaking. These waters are so rich with life and so unexplored the scientists continue to uncover new secrets of the sea here. Protecting the blue whale would protect all the other creatures here too. "I love animals," says Hucke-Gaete, "I love the sea. Particularly I love whales. I usually work with species that have been very close to extinction and now they are recovering somehow. I like to think that they will recover fully someday and if I can help, if we can help, that's the best thing I can do in my life, just to right the wrongs. " To give a species on the verge of extinction a second chance.

Members of Lpod sighted heading south off Monterey Coast, January 27, 2008

SRKW Distribution By Ken Balcomb, Director of the Center for Whale Research

In spite of the rough winter weather in California, the Puget Sound Orca (officially known as Southern Resident Killer Whales or SRKW's) once again traveled more than six hundred miles down the Pacific coast to Monterey Bay in search of their favorite food – Chinook salmon, now scarce in Washington State.

Nancy Black, of Monterey Bay Whale Watch, forwarded us this photograph taken

yesterday of L67,72,78,88,105 and many other L pod whales off Cypress Point near Carmel, heading south. Part of a pod of about 43 whales, they were last confirmed in Puget Sound on 14 December 2007 by researchers from the Northwest Fisheries Science Center (NMFS/NOAA).

Subsequently, we have reports of at least one L pod whale (L57) near the San Juan Islands on 13 January, a large group of killer whales heading west in the Strait of Juan de Fuca on 14 January, a pod of killer whales going south past Depoe Bay Oregon on 17 January, a pod of killer whales heading south off Fort Bragg California on 20 January, and a pod of killer whales heading south off Gualala, California on 21 January.

All of these reports fit a pattern of travel at about 75 miles per day that has been typical for SRKW's during the thirty-two years of Orca Survey photo-identification research that CWR staff have conducted. Each winter since January 2000, the majority of Puget Sound killer whales head south along the Pacific continental shelf searching for their prey, notably "feeder" Chinook salmon that used to number in the tens of millions along the Washington and Oregon coast.

In early spring, the SRKW's head north again along the coast, going as far as the Queen Charlotte Islands hunting for their food before returning to the Puget Sound region in summer months to feed near the San Juan Islands on salmon migrating to spawn in Washington and British Columbia rivers.

The whales and most stocks of the Chinook salmon are listed as Endangered in both the US and Canada. If California's pro-active effort to recover salmon stocks by setting aside large parcels of ocean as marine reserves prohibiting to fishing is successful, the SRKW's might just stay there. That would solve the so-called "whale-watching problem" in Washington State.

Already it is clear that the whales' critical foraging habitat is not simply bounded by Puget Sound, hence that is an inadequate designation. We believe that as a highest priority fisheries managers need to accept that in order to recover SRKW's, they must first recover salmon; and, we further believe the best way to do that is to put the whales before all other user groups of salmon. That is a huge paradigm shift in fisheries management that at this time may require several years of closure to all commercial and recreational fisheries for Chinook salmon, while restoring their spawning habitats as much as possible.

The alternative and the path society is on, according to fisheries experts, is that Chinook stocks will be driven to extinction before the end of this century. We consider that is worse news for fishermen than a few years of closure to allow stocks the best opportunity to recover.

Each winter, CWR representatives travel along the BC, Washington, Oregon, and California coast putting up posters requesting public sighting reports and opportunistic photographs of whales to track the SRKW population and determine its critical habitat requirements.

Please call 1-866-ORCANETWORK if you have a sighting report.

SIGHTINGS compiled by Monterey Bay Whale Watch

For updates see www.gowhales.com/sighting.htm

DATE	#	Type of Animals
4/5	10	Humpback Whales
4/5	9	Humpback Whales
4/5	12	Humpback Whales
4/4	10	Humpback Whales
	7	Killer Whales (transient type), feeding on elephant seal
	8	Humpback Whales
	5	Harbor Porpoise
4/3	11	Humpback Whales
	9	Humpback Whales
	7	Killer Whales (transient type)
4/2	23	Gray Whales
	8	Humpback Whales
	4	Harbor Porpoise
	12	Gray Whales

DATE	#	Type of Animals
4/2	10	Humpback Whales
	6	Killer Whales *
4/1	16	Humpback Whales
	6	Gray Whales
	16	Humpback Whales
3/31	4	Gray Whales
	16	Humpback Whales
	8	Harbor Porpoise
	5	Gray Whales
	12	Humpback Whales
3/30	10	Humpback Whales
	15	Risso's Dolphins
3/29	7	Humpback Whales
	3	Gray Whales
	12	Killer Whales (transient type)
	6	Humpback Whales
3/28	16	Gray Whales
	3	Humpback Whales
	12	Gray Whales
	1	Killer Whale (transient type)
	4	Humpback Whales
3/27	7	Humpback Whales
	10	Humpback Whales
	4	Harbor Porpoise
3/26	8	Humpback Whales
	7	Gray Whales
	6	Humpback Whales
3/25	9	Humpback Whales
	2	Humpback Whales
	2500	Pacific White-sided Dolphins
3/24	8	Humpback Whales
	9	Gray Whales
	10	Killer Whales (transient type)
	2	Humpback Whales
3/23	4	Humpback Whales
	6	Humpback Whales
	12	Gray Whales
	2	Humpback Whales
	2	Long-beaked Common Dolphins
3/22	4	Humpback Whale
	12	Gray Whales
	3	Humpback Whales
	20	Gray Whales
	3	Humpback Whales
3/21	3	Humpback Whales
	7	Gray Whales
	1	Humpback Whale
3/20	6	Gray Whales
	2	Humpback Whales
3/19	24	Gray Whales
	1	Humpback Whale
	200	Pacific White-sided Dolphins
	250	Northern Right Whale Dolphins
	12	Gray Whales
	3	Humpback Whales
3/18	3	Gray Whales
	15	Gray Whales
3/17	7	Gray Whales
	3	Humpback Whales
	2000	Pacific White-sided Dolphins
3/16		No trip, poor weather
3/15	14	Gray Whales
	1	Gray Whale
	1	Humpback Whale
3/14	18	Gray Whales
	1	Humpback Whale
	16	Gray Whales
3/13	28	Gray Whales
	26	Gray Whales
3/12	8	Killer Whales (transient type)
3/11	2	Gray Whales
3/10	16	Gray Whales
	20	Risso's Dolphins
3/10	13	Gray Whales
3/9	7	Gray Whales
	8	Gray Whales
	6	Killer Whales (transient type)
	1	Minke Whale
3/8	2	Gray Whales
	12	Dall's Porpoise
3/7	6	Gray Whales
	8	Gray Whales
3/6	7	Gray Whales
	125	Pacific White-sided Dolphins
	5	Bottlenose Dolphins
3/5	12	Gray Whales
3/5	13	Gray Whales
	3	Bottlenose Dolphins

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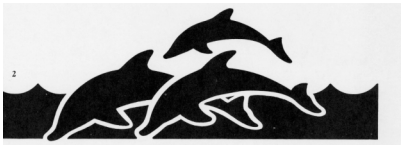

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Membership levels and Annual dues:
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Soundings

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May 2008

Inside This Issue

May Meeting

Date: Thursday, May 24, 2008

Monthly meeting at **Hopkins Marine Station,** Lecture Hall
Boat Works Building (Across from the American Tin Cannery Outlet Stores)

Time: 7:30 PM. **PLEASE JOIN US AT 6:00 FOR REFRESHMENTS AND A SPECIAL EXHIBIT OF BRYANT AUSTIN'S UNIQUE LARGE SCALE PHOTOGRAPHS OF HUMPBACK WHALES.**

Title: **Bryant Austin: An Artist Working Intimately With Whales To Save Them**

Bryant Austin is a fine art photographer who produces life-size photographs of whales to fulfill his vision of inspiring change within countries who continue to hunt or harm these creatures.

While the scale of his envisioned works is impressive, reaching up to 15 feet in height and 90 feet in length, it is the subtle and varied expressions in the eye of the whale and the emotions they evoke in us that he explores in-depth. He collaborates with experienced whale biologists and invests entire seasons with specific whale populations. He seeks out genuine connections with his subjects, and then, at a mere body's length from the whale, he begins the process of composing a series of photographs along the whale's body, ultimately producing a full-size composite.

An exhibition of Bryant's work is now on display at the La Mirada facility of the Monterey Museum of Art through May18, 2008. The next scheduled stop for his exhibit is the International Whaling Commission's (IWC) Annual Meeting in Santiago, Chile. There he will share insights into his joint collaboration with the World Society for the Protection of Animals where together they are working to inspire unexplored thoughts, emotions and ultimately change from the IWC delegates and attendees.

At the May presentation for our Chapter we will receive an exclusive preview of the audio/visual installation Bryant will bring to the IWC Annual Meeting.

Please join us to celebrate Bryant's work and his mission to save the whales.

CALENDAR

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Hopkins Marine Station
Spring 2008 Lecture

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SOMEMMA 2008
Ensenada, Baja California

JUNE-JULY 2008

July 12 ACS L.A. Blue Whale Trips
800am-400pm aboard the 78"Condor Express. Santa Barbara,CA. Cost is $93-$104.For more info contact Diane Alps at 310-548-7821

July 26 ACS National Annual Blue Whale Trip
Saturday 800am-400pm
aboard the 78" Condor Express Santa Barbara,CA. Cost is $93-$104. For info contact Diane Alps at 310-548-7821

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BIO 348: Technologies and Theories of Animal Training
July 7-13 Daily 9am-5pm

BIO 347: Working with Marine Mammals
July 21-27 Daily 9am -5pm
For more info Call 831-771-4191

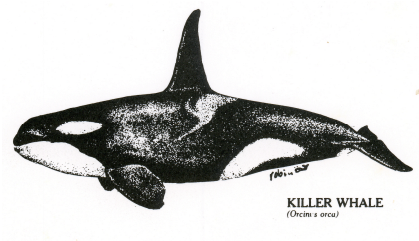
August-September 2008

August 9 ACS L.A. Blue Whale Trips
800am-400pm aboard the 78"Condor Express. Santa Barbara,CA. Cost is $93-$104.For more info contact Diane Alps at 310-548-7821

August 12-15 Conference-
Acoustic Communication By Animals. Oregon State University. Contact Sara Heimlich at 541-807-0328

August 16 ACS Monterey Bay
Whalewatch fundraiser. 9am-1:30 pm. Cost of trip is $50. Trip will take place on the 70ft Sea Wolf. Great local marine biologist and naturalist will be onboard. Contact Tony Lorenz for info and reservations at 831-648-8968 Or Jerry Loomis at 831-419-1051.

September 3 Lecture Dr. Carl Safina - Long Beach Aquarium. Topic to be announced.



GEOGRAPHIC VARIATION IN KILLER WHALE ATTACKS ON HUMPBACK WHALES IN THE NORTH PACIFIC: IMPLICATIONS FOR PREDATION PRESSURE

We examined the incidence of rake mark scars from killer whales (Orcinus orcaon) the flukes of humpback whales (Megaptera novaeangliae) throughout the North Pacific to assess geo-graphic variation in predation pressure. We used 3650 identification photographs from 16 wintering or feeding areas collected during 1990 to 1993 to determine conservative estimates in the percentage of whales with rake mark scarring. Dramatic differences were seen in the incidence of rake marks among regions, with highest rates on wintering grounds off Mexico (26 vs. 14% at others) and feeding areas off California (20 vs. 6% at others), 2 areas between which humpback whales migrate.

Although attacks are rarely witnessed, the prevalence of scars demonstrates that a substantial portion of animals are attacked, particularly those that migrate between California and Mexico. Our data also suggest that most attacks occur at or near the wintering grounds in the eastern North Pacific. The prevalence of attacks indicates that killer whale predation has the potential to be a major cause of mortality and a driving force in migratory behavior; however, the location of the attacks is inconsistent with the hypothesis that animals migrate to tropical waters to avoid predation. Our conclusion is that, at least in recent decades, attacks are made primarily on calves at the wintering grounds; this contradicts the hypothesis that killer whales historically preyed heavily on large whales in high latitude feeding areas in the North Pacific.

The article can be downloaded for free from the publishers website: http://www.intres.com/articles/esr2008/4/n004p247.pdf

NARWHALS MORE AT RISK TO ARCTIC WARMING THAN POLAR BEARS

By SETH BORENSTEIN, AP Science Writer. (04-26) 06:37 PDT WASHINGTON, (AP) --

The polar bear has become an icon of global warming vulnerability, but a new study found an Arctic mammal that may be even more at risk to climate change: the narwhal.

The narwhal, a whale with a long spiral tusk that inspired the myth of the unicorn, edged out the polar bear for the ranking of most potentially vulnerable in a climate change risk analysis of Arctic marine mammals.

The study was published this week in the peer-reviewed journal Ecological Applications. Polar bears are considered marine mammals because they are dependent on the water and are included as a species in the U.S. Marine Mammal Protection Act.

Scientists from three countries quantified the vulnerabilities that 11 year-round Arctic sea mammals have as the world warms. After the narwhal — which is also known as the "corpse whale" — and polar bear, the most at risk were the hooded seal, bowhead

whale and walrus. The ringed seal and bearded seal were least at risk.

"What we wanted to do was look at the whole picture because there's been a lot of attention on polar bears," said study co-author Ian Stirling, a polar bear and seal specialist for the Canadian government. "We're talking about a whole ecosystem. We're talking about several different species that use ice extensively and are very vulnerable."

The study looked at nine different variables that help determine ability to withstand future climate changes. Those factors included population size, habitat uniqueness, diet diversity and ability to cope with sea ice changes.

This doesn't mean the narwhal — with a current population of 50,000 to 80,000 — will die off first; polar bear counts are closer to 20,000 and they are directly harmed by melting ice, scientists said.

But it does mean the potential for harm is slightly greater for the less-studied narwhal, said study lead author Kristin Laidre, a research scientist at the University of Washington.

Stanford University biologist Terry Root, who wasn't part of the study, said the analysis reinforces her concern that the narwhal "is going to be one of the first to go extinct" from global warming despite their population size.

"There could a bazillion of them, but if the habitat or the things that they need are not going to be around, they're not going to make it," Root said.

Polar bears can adapt a bit to the changing Arctic climate, narwhals can't, she said.

While polar bears are "good-looking fluffy white creatures," Laidre said narwhals, which are medium-sized whales, are "not that cute."

The narwhal, which dives about 6,000 feet to feed on Greenland halibut, is the ultimate specialist, evolved specifically to live in small cracks in parts of the Arctic where it's 99 percent heavy ice, Laidre said. As the ice melts, not only is the narwhal habitat changed, predators such as killer whales will likely intrude more often.

"Since it's so restricted to the migration routes it takes, it's restricted to what it eats, it makes it more vulnerable to the loss of those things," Laidre said in a telephone interview from Greenland, where she is studying narwhals by airplane.

The paper is the talk of Arctic scientists said Bob Corell, the head of an international team of scientists who wrote a massive assessment of risk in the Arctic in 2004 but wasn't part of this study. He called it "surprising because the polar bear gets a lot of attention."

Inuit natives of Greenland were telling scientists last year that it seemed that the narwhal population was in trouble, Corell said.

THE 2008 SEAL HUNT: INCREASES IN QUOTAS AS WELL AS PRESSURE FROM ANTI-SEALING COUNTRIES

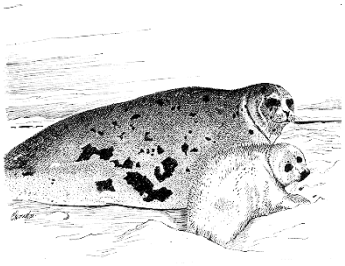
With the opening of the seal hunt set for late March, Fisheries and Oceans Canada (DFO) has set a quota for 275,000 harp seals out of a total herd of 5.5 million animals. This quota has been increased by 5,000 and includes a carry forward of over 16,000 seals for those fleets that did not reach their quota from

2007. There is also an allocation of 5,000 seals for Aboriginal initiatives and 2000 seals for personal use permit holders. The hooded seal quota is set at 8,200 out of a total herd of 600,000. Existing sharing arrangements remain unchanged with 70 per cent for the Newfoundland Front and 30 per cent for the Gulf of St. Lawrence.

Fisheries Minister, Loyola Hearn, justifies the increase by the economic importance of this hunt for coastal Maritime communities and the fact that the species is not at all threatened. While awaiting new regulations, he promises to apply the recommendations of an international group of veterinarians for a three-stage, humane kill: after a blow to the head, the sealer must check that the skull is crushed and then bleed the animal by severing arteries.

THE DOMINO EFFECT OF THE EUROPEAN BOYCOTT

On the other side of the Atlantic Ocean, Belgium and Holland have adopted laws banning the sale of pelts and seal by-products such as Omega-3-rich oil and meat. France, Italy, Germany and Austria have also engaged in this process by establishing similar laws under pressure of consumers who turn their backs on fur and consider the hunt to be cruel. The positions of these countries could lead to a decline in market prices for seal fur. Seal pelts reached a record 100 dollars apiece in 2006, only to drop back to around 60 dollars in 2007. A 50 percent drop is predicted for 2008. Canada is concerned that the boycott could have a domino effect on Eastern European and Asian markets, which remain the mainstay for seal pelts.



ACTIONS AND REACTION IN CANADA

Last summer Canada launched a World Trade Organization (WTO) challenge against European measures taken in 2007. Quebec, Newfoundland and Nunavut sealers will be heading to several European capitals to defend their industry. Representatives from animal defense groups organized small protests in the nude on March 15 in Montreal and several other Canadian cities for an end to sealing and a boycott of seal by-products by Canadian consumers. Fisheries and Oceans Canada refuted the arguments of the protestors, which they claim were based, for the most part, on debatable studies and emotion, and deplore the disinformation campaign of these particular organizations. Some organizations actually use pictures of baby seals—known as whitecoats—even though their killing has been banned since 1987.

A NEW ORIENTATION FOR THE MARKETING OF SEAL PRODUCTS

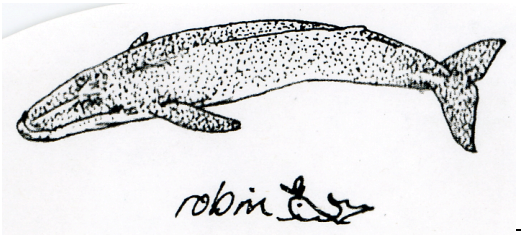
The Magdalen Islands-based company Tamasu is working in partnership with a group of Greek researchers interested in using seal heart valves for cardiac transplants. Seal valves may be more resistant than those from cows and pigs that are presently being used in this type of surgery and could ensure a longer life for patients. This new market could be very profitable and would likely improve the image of sealing. [Fisheries and Oceans Canada, Pêche Impact, Radio-Canada, AFP]

NEW PUBLICATIONS ON UNDERWATER BEHAVIOR OF BLUE WHALES

The article below summarizing the underwater behavior of blue whales from suction-cup attached Crittercams was recently published:

We examined the underwater behavior of blue whales using a suction-cup-attached video-imaging instrument (CRITTERCAM). We made 13 successful deployments (defined as tag duration of >15 min and successful recovery of the tag and data) totaling 19 hours of CRITTERCAMs on blue whales off California and in the Sea of Cortez from spring through fall (26 February to 30 September) between 1999 and 2003 . Whale diving depth and behavior varied widely by region and period, although deployments on different individuals in the same area and period often showed very similar feeding behavior. One deployment extending into night showed a diurnal shift in diving behavior with progressively shallower feeding dives as it became dark, with shift to shallow, apparently non-feeding dives during the night. Data and video from tags demonstrated that the characteristic series of vertical movements blue whales make at depth are lunges into dense aggregations of krill. These krill were visible streaming by the camera immediately before these lunges and more clearly when the whales' forward motion stopped as a result of the lunge. The progression of events leading up to and during the lunge could be documented from the head movement of whales and occasional views of the expanding throat pleats or lower jaw, and by changes in flow noise past the tag, indicating a rapid deceleration. One set of deployments in the Southern California Bight revealed consistent feeding at depths of 250-300 m, deeper than has been previously reported for blue whales. A loud blue whale vocalization was heard on only one deployment on a male blue whale in an interacting trio of animals.

Calambokidis, J., G.S. Schorr, G.H. Steiger, J. Francis, M. Bakhtiari, G. Marshall, E. Oleson, D. Gendron and K. Robertson. 2008. Insights into the underwater diving, feeding, and calling behavior of blue whales from a suction-cup attached video-imaging tag (CRITTERCAM). Marine Technology Society Journal 41(4):19-29. Link to full PDF in Marine Technology Society Journal



SIGHTINGS compiled by Monterey Bay Whale Watch

For updates see www.gowhales.com/sighting.htm

Date	#	Type of Animals
5/6 p.m.	18	Humpback Whales
	12	Harbor Porpoise
5/6 a.m.	20	Humpback Whales
	30	Harbor Porpoise
	1	Fur Seal
5/5 p.m.	19	Humpback Whales
	10	Harbor Porpoise
5/5 a.m.	24	Humpback Whales
	13	Harbor Porpoise
5/4 p.m.	18	Humpback Whales
	7	Harbor Porpoise
5/4 a.m.	27	Humpback Whales
	16	Harbor Porpoise
5/3 p.m.	16	Humpback Whales
	18	Harbor Porpoise
5/3 a.m.	24	Humpback Whales
	5	Harbor Porpoise
5/2	24	Humpback Whales
	6	Killer Whales*
	25	Risso's Dolphins
	7	Harbor Porpoise
5/1	25	Humpback Whales

	6	Dall's Porpoise
	6	Killer Whales *
4/30	14	Humpback Whales
4/29	18	Humpback Whales
	12	Harbor Porpoise
4/28 p.m.	25	Humpback Whales
	10	Harbor Porpoise
4/28 a.m.	25	Humpback Whales
	6	Harbor Porpoise
	30	Killer Whales*
4/27 p.m.	20	Humpback Whales
	12	Harbor Porpoise
4/27 a.m.	24	Humpback Whales
	28	Killer Whales*
4/26 p.m.	24	Humpback Whales
	7	Harbor Porpoise
4/26 a.m.	26	Humpback Whales
	14	Harbor Porpoise
4/26 early am	25	Humpback Whales
4/25 p.m.	18	Humpback Whales
4/25 a.m.	32	Killer Whales**
	23	Humpback Whales
4/24	22	Killer Whales*
	12	Humpback Whales
	7	Harbor Porpoise
4/23 p.m.	28	Killer Whales **
	5	Humpback Whales
4/23 a.m.	28	Killer Whales**
	12	Humpback Whales
4/22 p.m.	14	Killer Whales**
	10	Humpback Whales
4/22 a.m.	23	Killer Whales*
	16	Humpback Whales
	2	Gray Whales
4/21	22	Humpback Whales
	25	Risso's Dolphins
4/20 p.m.	7	Humpback Whales
4/20 a.m.	22	Humpback Whales
4/20	24	Humpback Whales
4/19 early a.m.	8	Humpback Whales
4/18 p.m.	20	Humpback Whales
	6	Harbor Porpoise
4/18 a.m.	20	Humpback Whales
	8	Harbor Porpoise
4/17 pm.	18	Humpback Whales
	10	Harbor Porpoise
4/17 a.m.	25	Humpback Whales
	15	Harbor Porpoise
4/16	24	Humpback Whales
	8	Harbor Porpoise
4/15	26	Humpback Whales
	12	Harbor Porpoise
4/14	20	Humpback Whales
	10	Harbor Porpoise
4/13 p.m.	15	Humpback Whales
4/13 a.m.	8	Gray Whales
	10	Humpback Whales
4/13 early a.m.	2	Humpback Whales
	6	Harbor Porpoise
4/12 p.m.	18	Humpback Whales
	16	Harbor Porpoise
4/12 a.m.	27	Humpback Whales
	12	Harbor Porpoise
4/12 early a.m.	25	Humpback Whales
	8	Harbor Porpoise
4/11 p.m.	26	Humpback Whales
4/11 a.m.	26	Humpback Whales
4/10	2	Gray Whales
	32	Humpback Whales
4/9 p.m.	30	Humpback Whales
4/9 a.m.	28	Humpback Whales
4/8	30	Humpback Whales
4/7	22	Humpback Whales
	6	Harbor Porpoise
4/6 p.m.	20	Humpback Whales
4/6 a.m.	6	Killer Whales*
	8	Humpback Whales
	6	Harbor Porpoise
4/6 early a.m.	15	Humpback Whales
	2	Long-beaked Common Dolphins

*transient types
** feeding on gray whale calves

NOTABLE BOOKS

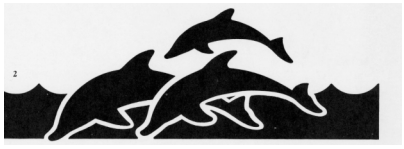
Beautiful Minds: The Parallel Lives of Great Apes and Dolphins. 2008 Harvard University Press 300 pages. Maddaleana Bearzi, President Co-founder Ocean Conservation Society

The End of the Line: How Over-fishing is Changing the World and What we Eat 2008 University of California Press Charles Clover.

DVD-SHARKWATERS ; WINNER OF 22 INTERNATIONAL AWARDS. Biologist and Filmmaker Rob Stewart documents the 90% decline in the worlds shark populations.

ARTICLE: Collapse of Blue-fin Tuna in the Western Atlantic. Written by Carl Safina and Dane H. Klinger 2008 Conservation Biology, Volume 22

American Cetacean Society
Monterey Bay Chapter
P.O. Box H E
Pacific Grove, CA 93950



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Renewal ___

Name _____

Address_____Email_____

City, State, Zip_____

Membership level _____

Membership levels and Annual dues:
Lifetime $750Patron $500Contributing$250
Supporting $75Foreign $45Family $45Active$35
Student/Teacher/Senior $25
Subscription only * $15/11 issues (*not entitled to membership benefits)
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Signature_____
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Return to: Membership Secretary, ACS Monterey Bay Chapter
P.O. Box H E Pacific Grove, CA 93950

Soundings

American Cetacean Society- Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950
www.starrsites.com/acsmb

JUNE 2008

Inside This Issue

June Meeting

Date: Thursday, June 26, 2008

Monthly meeting at **Hopkins Marine Station,** Lecture Hall
Boat Works Building (Across from the American Tin Cannery Outlet Stores)

Time: 7:30 PM. **PLEASE JOIN US AT 7:00 FOR REFRESHMENTS**

Speaker: **DEBRA SHEARWATER**

Title: **PENGUINS OF THE WORLD**

Everyone sees penguins in a different way. As ocean adventurers, exceptional divers and amazing survivors, penguins have managed to adapt to the harshest climates on earth, spending their lives in frigid seas and on ice and snow covered slopes and even nesting on the Galapagos Islands.

Debra Shearwater will discuss, using spectacular photographs, every species of penguin in the world, such as Emperors, Kings, Gentoos, Rockhoppers, Chinstraps, Adelies, Galapagos, Macaronis, Royal and little Blue. There are18 species in all. Debra has traveled to all of the world's penguin breeding areas, save one, that of the South African Penguin which she plans to see on a voyage scheduled for 2009.

Debra's experience is far reaching. In 1976 she established Shearwater Journeys, a company which offered one day pelagic trips from California. After sharing the natural wonders of Monterey Bay with some 60,000 visitors, Debra still found a way to visit the seven continents on the planet, experiencing nature's wonders around the world. She co-produced a popular DVD, *THROUGH THE SEASONS:* An Introduction to the Seabirds and Marine Mammals of Monterey Bay, authored several popular articles about seabirds, worked on a radio tagging program for Blue Whales and participated in several studies of various dolphin species.

Additionally, Debra is a very special guest to our Chapter Monthly Meeting. When this Chapter was founded in 1980 Debra was there. She was a "founder" and charter member and the first to make a monetary donation to our Chapter.

Please join us for what promises to be an interesting journey into the world of the Penguin…

CALENDAR

JULY 2008

July 6 7 pm: Cracking the Humpback Code Premiere Mutual of Omaha's Wild Kingdom, Animal Planet -Featuring the work of Jim Darling, Meagan Jones, and Flip Nicklin.

July 10 – 31 Wild Things-An Adventure in Art and Nature. Explore and draw local marine and terrestrial wildlife with local artist Laurie Lindley Muender. Thursdays 3:30pm-5pm. Pacific Grove Museum of Natural History. Ages 8 to 15- $50 session or $15 each class.

July 12 ACS L.A. Blue Whale Trips. 8 am - 4 pm aboard the 78' Condor Express. Santa Barbara, CA. Cost is $93-$104. For more info contact Diane Alps at 310-548-7821.

July 19 MBARI Open House: 12 noon - 5 pm Moss Landing Harbor.

July 26 ACS National Annual Blue Whale Trip Saturday 8am-4pm aboard the 78' Condor Express. Santa Barbara, CA. Cost is $93-$104. For info contact Diane Alps at 310-548-7821

August 2008

August 9 ACS L.A. Blue Whale Trips 8am -4pm aboard the 78' Condor Express. Santa Barbara, CA. Cost is $93-$104. For more info contact Diane Alps at 310-548-7821.

August 12 Sea to Shore Lecture Series 7:00 pm Santa Barbara Museum of Natural History: Blue Whale Strandings Paul Collins and Michelle Burman.

August 12-15 Conference: Acoustic Communication By Animals. Oregon State University. Contact Sara Heimlich at 541-807-0328

August 16 ACS Monterey Bay Whalewatch Fundraiser. 9am-1:30 pm. Cost of trip is $50. Trip will take place on the 70ft Sea Wolf. Great local marine biologist and naturalist will be on-board. Contact Tony Lorenz for info and reservations at 831-648-8968 or Jerry Loomis at 831-419-1051.

November 2008

AMERICAN CETACEAN SOCIETY'S BIENNIAL CONFERENCE NOVEMBER 14-16 2008. MONTEREY, CA.

World-renowned cetacean experts will gather in Monterey to discuss science, conservation, and policy. Field trips will be held on Nov. 14 and will include whale watching on Monterey Bay as well as kayaking in Elkhorn Slough and coastal wilderness hikes. Location for the conference will be the Monterey Beach Hotel in Monterey, CA. More info will be forthcoming.

Nov 17- 18 SPLASH Conference also to be held at the Monterey Beach Hotel. Biologist John Calambokidis and Dr. Bruce Mate will be present.

Academic Classes and Lectures in Monterey Bay

UCSC Marine Mammal Courses:
Biology of Marine Mammals Summer Session 2 July 28-Aug 29 (900am-12:30 pm) Course held at Long Marine Lab 3 miles off campus.

Biology of Marine Mammals Lab 2 units Summer Session 2 Wed-Fri (200pm-5:30pm) Course held at Long Marine Lab 3 miles off campus.

The Ecology and Conservation of Marine Birds and Mammals 5 units. Summer Session2 July 28-Aug 29 (830am-1200pm). Class will be held at Long Marine Lab 3 miles off campus

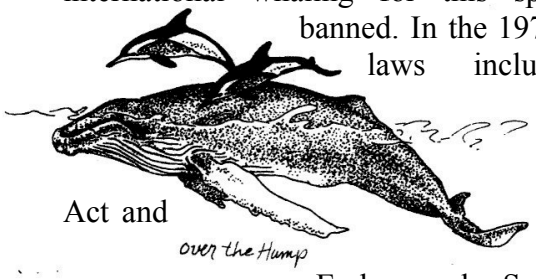
UCSC Marine Science Illustration 5 units Summer Session 1: Tue and Thu (9am-1230pm). Class meets at 1101 Pacific Ave. Downtown Santa Cruz

UCSC Marine Science Class: 5 units
Life in the Sea-Summer Session 2 July 28 -Aug 29 Mon Wed Fri (930am-1200pm)
Class meets on campus

MOST NORTH PACIFIC HUMPBACK WHALE POPULATIONS REBOUNDING.

ScienceDaily (May 22, 2008) — The number of humpback whales in the North Pacific Ocean has increased since international and federal protections were enacted in the 1960s and 70s, according to a new study funded primarily by NOAA and conducted by more than 400 whale researchers throughout the Pacific region.

However, some isolated populations of humpbacks, especially those in the Western Pacific Ocean, have not recovered at the same rate and still suffer low numbers. The new research reveals that the overall population of humpbacks has rebounded to approximately 18,000 to 20,000 animals. The population of humpback whales in the North Pacific, at least half of whom migrate between Alaska and Hawaii, numbered less than 1,500 in 1966 when international whaling for this species was banned. In the 1970s, federal laws including the Marine Mammal Protection Act and the Endangered Species Act provided additional protection.



"NOAA is proud to have played a key role in initiating and funding this study," said retired Navy Vice Adm. Conrad C. Lautenbacher, Ph.D., under secretary of commerce for oceans and atmosphere and NOAA administrator. "It is only through this type of international cooperation that we can gauge our success and measure what additional work needs to be accomplished to protect highly migratory marine mammals."

The results of this new report come from SPLASH (Structure of Populations, Levels of Abundance and Status of Humpbacks), an international effort involving more than 50 organizations. Launched in 2004, the project determined whale migratory patterns and estimated population sizes by using a library of 18,000 photographs of whale flukes to identify 8,000 individual whales. Cascadia Research in Olympia, Wash., the central coordinator for the SPLASH project, matched photographs from six different feeding and breeding areas. By matching whale flukes photographed in their feeding areas with those photographed in the wintering areas, researchers were able to determine the patterns of individual whale movements, as well as estimate the sizes of different populations. In addition to whale fluke photographs, SPLASH researchers collected more than 6,000 biopsy samples for studies of genetics and pollutants, along with thousands of additional photographs to determine how levels of scarring from line entanglement and ship strikes vary among regions. The samples, which are yet to be analyzed, will provide valuable insights into the complex population structure and current threats to further recovery. Funding for the SPLASH project comes from NOAA's Office of National Marine Sanctuaries and National Marine Fisheries Service, the National Fish and Wildlife Foundation, the Pacific Life Foundation, Department of Fisheries and Oceans Canada, and the Commission for Environmental Cooperation, along with support from a number of other organizations and governmental agencies.

WHALES ARE 'CHEETAHS OF THE DEEP'

By Matt Walker, BBC.

Super-fast pilot whales have been observed sprinting after prey, likely to include giant squid. The rapid pursuit has brought comparisons with the fleet-footed land predator, the cheetah. The cetaceans even use the same, highly specialised hunting strategy that cheetahs use, scientists report in the Journal of Animal Ecology.

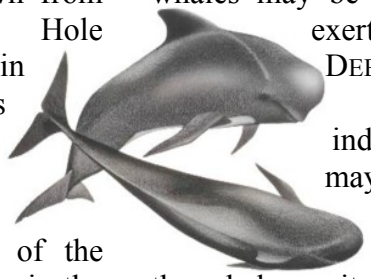
They say it gives the lie to our perception that deep-sea whales are slow, energy-saving creatures. Short-finned pilot whales seem to be the greatest burst-speed athletes of the deep-diving mammals. It is the

first time such remarkable behaviour - occurring hundreds of metres underwater, in complete darkness - has been recorded.

"As far as we know, no other whale has been recorded to swim nearly as fast at depth," says marine biologist Natacha Aguilar Soto, of La Laguna University in Tenerife, Spain. "Short-finned pilot whales seem to be the greatest burst-speed athletes of the deep-diving mammals."

ENERGETIC SPRINT

Aguilar Soto is a member of an international team of researchers drawn from La Laguna University, Woods Hole Oceanographic Institution in Massachusetts, US, and Aarhus University, Denmark.



The team tagged and studied 23 short-finned pilot whales *(Globicephala macrorhynchus*) living off the coast of the Canary Islands, one of only three places in the world that these whales permanently reside. The tags, designed by co-author Mark Johnson of Woods Hole, recorded the speed, depth and direction of the whales' dives, and also the sounds made and heard by the whales. During the day, the whales are frequently seen lazing on the surface, often in social). That led scientists to previously think the whales only hunt at night. But the tags demonstrate the whales also hunt during the day. And when they do, they dive deep, and they dive fast. Tags showed the whales take just 15 minutes to dive to depths of 800m to 1,000m (0.6 mile), and more. And when they pinpoint their prey, the whales surge after it, reaching speeds of nine metres per second, or 32 kilometres per hour (20mph). What's more, they may keep up the sprint for 200m (650ft), before either catching the prey or giving up the chase.

The discovery fundamentally challenges our perceptions of how deep-sea creatures behave, says Aguilar Soto. Pilot whales can also enjoy a more sedate pace of life. Until now, researchers assumed that deep-diving whales moved relatively slowly, due to the need to conserve oxygen whilst holding their breath.

"It was completely unexpected that short-finned pilot whales sprint at depth with limited oxygen reserves. Cheetahs, for example, more than double their breathing rate during chases," says Aguilar Soto.

So like cheetahs, pilot whales must therefore follow a high-risk, high-gain hunting strategy based on high-speed, energetically expensive sprints. But somehow, the whales do it while still holding their breath. And that may explain why they are spotted lazing on the surface - the whales may be actually recovering from the exertion of the hunt.

DEEP BATTLE

There is also tantalising, indirect evidence that the whales may sometimes chase down giant squid. During the dives, the acoustic tags revealed that the whales switched from slower echolocation clicks to a fast series of clicks, or buzz. That allows them to "see with sound" with greater resolution in the darkness, says co-author Peter Madsen of Aarhus University.

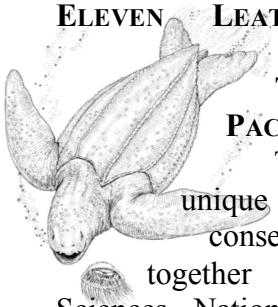
"The analogy is like going from snap-shots to video," he says, indicating the whales are trying to capture prey after the sprints.

But "the prey must be large or calorific to reward the deep dives, and they must be able to move rapidly given the top speeds we clocked for the whales," says Aguilar Soto. One animal fits the bill, the giant squid Architeuthis . "We found a piece of fresh Architeuthis arm floating in the vicinity of diving pilot whales and findings of bitten Architeuthis are common in the area where the whales live," Aguilar Soto explains. Also, colleague Pablo Aspas recently took a photo of a pilot whale half-breaching with a piece of large squid in its mouth.

"Its colour and the shape of the cups indicate it may well belong to Architeuthis and the size of the piece indicates that the full length of the tentacle would be more than two metres, corresponding to a squid 4-5 metres long and some 180kg in weight," says

cephalopod expert Angel Guerra of the Institute for Marine Investigations in Vigo, Spain.

"We have imagined battles between sperm whale and giant squid. But it may turn out that it is pilot whales, one-third the size of sperm whales, which are sprinting for the giant squid!" says Aguilar Soto.



ELEVEN LEATHERBACK TURTLES TO COMPETE IN THE GREAT TURTLE RACE ACROSS THE PACIFIC OCEAN

The Great Turtle Race II, a unique international sea turtle conservation event bringing together the Chinese Academy of Sciences, National Oceanic and Atmospheric Administration (NOAA) scientists, Drexel University and other academic institutions, and conservation organizations, will take place from June 2 to June 16 in a global bid to raise awareness and funds for the critically endangered leatherback turtle. The Great Turtle Race II will be the first large-scale outreach effort to the people of China by a US-based conservation NGO. A simultaneous, mandarin-language version of Great Turtle Race II website is expected to bring the race's messages to approximately 100 million Chinese citizens.

Eleven institutions and sponsors from America, China, and Indonesia will compete in the Great Turtle Race II, including: the Chinese Academy of the Sciences, Drexel University, University of Papua, Indiana Purdue University, the Children and Youth Science and Technology Center of the China Association for Science and Technology, Kalamazoo College, Offield Center for Billfish, Bullis Charter School, Haddonfield High School, Hillside School, and World Wildlife Fund Indonesia. The Great Turtle Race II is organized by The Leatherback Trust, NOAA, Global Cause, Tagging of Pacific Pelagics, Sea Turtle Restoration Project, and Drexel University.

The eleven sponsored turtles have been equipped with satellite tags and are "racing" toward the International Dateline (or the middle of the Pacific Ocean) from nesting beaches in Indonesia and feeding areas along the U.S. West Coast. The leatherback is a 100 million-year-old massive sea turtle that outlived the dinosaurs but is now dangerously close to extinction. Leatherback numbers in the Pacific Ocean have decreased from about 115,000 two decades ago to fewer than 5,000 today. This online event will raise funds to protect leatherback turtle-nesting areas in Indonesia and raise awareness about what individuals can do—on both sides of the Pacific Ocean—to help protect sea turtles in our daily actions.

James Spotila, president of the Leatherback Trust and Drexel professor, said "This Olympic-like event joins scientists, conservationists and educators in China, Indonesia and the Unites States in an effort to inform children and adults about the turtles while they enjoy another exciting race. The school children of the United States and the school children of China will cheer on their turtles and, in doing so, promote friendship."

Starting June 2nd, race fans will have a chance to choose a favorite turtle to cheer during the race at www.greatturtlerace.com. Throughout the race, viewers can follow each turtle's journey across the Pacific and learn about the obstacles it will face along the way—fishing lines and nets, plastic bags that look like jellyfish (leatherbacks' primary food source), and many other human-related hazards. Activities for fans include a chance to try to pick the winning turtle, an interactive animation of a leatherback's life, opportunities to ask questions, and sea turtle educational curriculum for teachers.

"The Great Turtle Race is about sharing information on one of the most amazing inhabitants of our Ocean, a Volkswagen Beetle-sized turtle that has outlived the dinosaurs, with the public," said Mike Milne of the Sea Turtle Restoration Project. "The race and the story it tells about leatherback sea turtles give people a tangible reason to care about the ocean."

As the leatherbacks surface to breath every several minutes, satellite tags transmit

data such as location and water temperature to satellites in space, which then transmit the data back down to computer servers in the U.S. This data is combined with remotely-sensed information about sea surface temperature, sea surface height, and more to build a comprehensive understanding of leatherbacks' epic, trans-Pacific migrations. Scientists and managers will be able to use this information on oceanography, animal behaviors, and human pressures to develop innovative ways to conserve leatherbacks and other sea turtles.
Go to www.greatturtlerace.org for more info.

ICE DWELLERS ARE FINDING LESS ICE TO DWELL ON. By Natalie Angier.

Nobody knows how many walruses the world holds. Recent surveys by the United States Fish and Wildlife Service and others put the number at roughly 190,000, with the vast majority of walruses in the Pacific half of the Arctic and sub-Arctic Circle and maybe 10 percent in Atlantic waters. But researchers have little doubt that the figure is on a downward slide, as the polar ice sheet on which the mammal depends for every stage of its life thins and retreats from beneath its flippered feet.

"The ice is melting three weeks earlier in the spring than it did 20 years ago, and it's re-forming a month later in the fall," said Carleton Ray of the University of Virginia, who has studied walruses since the 1950s.

"There's no question that these changes are very bad for walruses," Dr. Ray added, as they are for other ice dwellers like polar bears and four species of the walrus's pinniped kin: the ribbon, ringed, spotted and bearded seals.

Moreover, the retreat of the polar ice cap is luring human industry northward as never before. In February, for example, the Interior Department awarded Royal Dutch Shell the right to drill for oil in the Chukchi Sea off the northwestern shore of Alaska, a heretofore unprospected patch of marine habitat and prime walrus fishing ground.

Like all pinnipeds, walruses are amphibious, finding their sustenance in the sea and their respite on land or ice. They are neither long-distance swimmers nor deep-sea divers, as some whales and elephant seals can be, but hunt in shallow waters around the continental shelf, rarely descending below 100 or 200 feet and re-emerging often to catch their breath. Adult male walruses will leave the ice to summer along the coasts of Siberia and Alaska, but females and their young stay on the floes year-round — assuming the ice complies.

Chad Jay of the walrus research program at the Alaska Science Center in Anchorage said that over the last decade, the ice sheet in the Chukchi Sea had been retreating steadily farther north each summer, to the point where it now moves off the continental shelf entirely and ends up over the deep arctic basin, in waters too deep for walruses to forage. As a result, females and calves have been forced to abandon the ice in midsummer and follow the males to land. The voyage leaves them emaciated and easily panicked. With the slightest disturbance, the herd desperately heads back into the water, often trampling one another to death as they flee.

"The ones that take the brunt of it are the calves," Dr. Jay said. "Our Russian colleagues have observed thousands of calves killed" in episodes of beachside mayhem.

"The time has come," Lewis Carroll's walrus said, "to talk of many things," among them what the future holds for tusky Odobenus, the pinniped.

SIGHTINGS compiled by Monterey Bay Whale Watch. For updates see

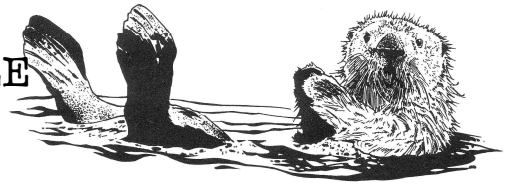
www.gowhales.com/sighting.htm

Date	#	Type of Animals
6/2	8	Humpback Whales
	10	Pacific White-sided Dolphins
	75	Risso's Dolphins
6/1	18	Humpback Whales
	45	Risso's Dolphins
	12	Harbor Porpoise

5/31 p.m.	2	Humpback Whales
	150	Risso's Dolphins
5/31 a.m.	26	Humpback Whales
	70	Risso's Dolphins
5/30 p.m.	8	Humpback Whales
	7	Harbor Porpoise
5/30 a.m.	22	Humpback Whales
5/29 p.m.	14	Humpback Whales
5/29 a.m.	20	Humpback Whales
	13	Harbor Porpoise
5/28 p.m.	18	Humpback Whales
	16	Harbor Porpoise
5/28 a.m.	14	Humpback Whales
	10	Killer Whales *
5/27 p.m.	12	Humpback Whales
	8	Harbor Porpoise
5/27 a.m.	16	Humpback Whales
	200	Pacific White-sided Dolphins
	1200	Risso's Dolphins
	150	Northern Right Whale Dolphins
5/26 p.m.	18	Humpback Whales
	15	Pacific White-sided Dolphins
	12	Harbor Porpoise
5/26 a.m.	14	Humpback Whales
	12	Killer Whales *
	1100	Pacific White-sided Dolphins
5/25 p.m.	18	Humpback Whales
5/25 a.m.	10	Humpback Whales
	11	Killer Whales *
	15	Risso's Dolphins
5/24 p.m.	12	Humpback Whales
	15	Harbor Porpoise
5/24 a.m.	33	Humpback Whales
	10	Harbor Porpoise
5/23 p.m.	14	Humpback Whales
5/23 a.m.	16	Humpback Whales
	22	Killer Whales*
	6	Harbor Porpoise
5/22		No trip, poor weather
5/21		No trip, poor weather
5/20 p.m.	23	Humpback Whales
	10	Harbor Porpoise
5/20 a.m.	15	Humpback Whales
	8	Killer Whales *
	5	Killer Whales*
	34	Harbor Porpoise
5/19 p.m.	4	Humpback Whales
5/19 a.m.	12	Humpback Whales
	110	Risso's Dolphins
5/18 p.m.	34	Humpback Whales
	7	Harbor Porpoise
5/18 a.m.	18	Humpback Whales
	17	Harbor Porpoise
5/17 p.m.	35	Humpback Whales
5/17 a.m.	36	Humpback Whales
	250	Pacific White-sided Dolphins
5/16 p.m.	30	Humpback Whales
	2	"Friendly" Humpbacks
5/16 a.m.	18	Humpback Whales
	6	Killer Whales*
	45	Northern Right Whale Dolphins
5/15 p.m.	20	Humpback Whales
5/15 a.m.	24	Humpback Whales
	1200	Pacific White-sided Dolphins
	800	Northern Right Whale Dolphins
5/14 p.m.	22	Humpback Whales
5/14 a.m.	18	Humpback Whales
	20	Killer Whales**
5/13	18	Humpback Whales
	6	Killer Whales*
	5	Harbor Porpoise
5/12	27	Humpback Whales
	12	Harbor Porpoise
5/11 p.m.	24	Humpback Whales
5/11 a.m.	25	Humpback Whales
5/10 p.m.	20	Humpback Whales
	10	Harbor Porpoise
5/10 a.m.	23	Humpback Whales
	75	Pacific White-sided Dolphins
	45	Risso's Dolphins
5/9 p.m.	10	Humpback Whales
5/9 a.m.	15	Humpback Whales
5/8	22	Humpback Whales
	8	Harbor Porpoise
5/7	20	Humpback Whales

*transient types
**predation on sea lion

NOTABLE BOOKS



Thousand Mile Song- Whale Music in a Sea of Sound. David Rothenberg, 2008.

Harpoon- Into the Heart of Whaling. Andrew Darby, 2007.

The Urban Whale- North Atlantic Right Whale at the Crossroads. Scott Krauss, 2008 Harvard University Press.

Face To Face With Whales– For Young Readers (4-8). Flip Nicklin, 2008 National Geographic Society Publication.

The Natural History of the Point Reyes Peninsula. Jules G. Evans, 2008 UC Press.

American Cetacean Society
Monterey Bay Chapter
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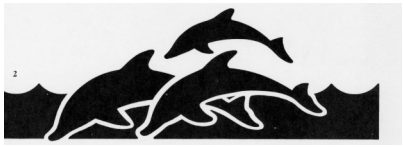
Pacific Grove, CA 93950



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American Cetacean Society Membership Application Chapter#24

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Renewal ___

Name _____

Address_____Email_____

City, State, Zip_____

Membership level _____

Membership levels and Annual dues:
Lifetime $750Patron $500Contributing$250
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Student/Teacher/Senior $25
Subscription only * $15/11 issues (*not entitled to membership benefits)
Check___Mastercard___Visa___Expiration date_____

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Make checks payable to: ACS/Monterey Bay Chapter
Return to: Membership Secretary, ACS Monterey Bay Chapter
P.O. Box H E Pacific Grove, CA 93950

Soundings

American Cetacean Society- Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950
www.starrsites.com/acsmb

JULY 2008

American Cetacean Society – Monterey Bay Chapter
ANNUAL BBQ
BBQ is open to the Public

Date: Saturday, July 26, 2008

Time: 4:00 PM.

Location: Indian Village, Pebble Beach (SIGNS WILL BE POSTED)

Honoree: Jerry Loomis, President of ACS, Monterey Chapter

BBQ is $15 per person. Please send payment to ACS, PO Box HE, Pacific Grove, 93950 or call Diane @ 646-8743 for reservations or information. Menu: BBQ meats and veggie options. Please bring your own table service.

*****

Traditionally, at our Annual BBQ, the Monterey Chapter of the ACS honors someone who has made exceptional contributions to the world of nature and to conservation of our planet's natural resources. This year's honoree is our own Chapter President, Jerry Loomis.

The Monterey Chapter was founded in 1980 and since that time Jerry has served the equivalent of 4 two year terms as President. His first term was from 1988 to 1989. His second, third and fourth terms ran consecutively from 2002 and will conclude at the end of this year. It is often difficult to find leaders to fill volunteer roles so it was a blessing to have someone who was willing to serve so well for such an extended time.

As a naturalist, he has made several trips to San Ignacio Lagoon in Mexico where he became involved with some of the locals in the village of San Ignacio. He along with Chapter Board members Carol Maehr and Esta Lee Albright initiated an outreach program which purchased educational supplies for the students at the village school. The people there already had a strong conservation ethic with regard to the gray whales that calve and breed there. Jerry felt that if the Chapter helped the children of San Ignacio they would be better able to continue whale protection in the future.

Jerry was also fundamental in connecting with students in Mexican universities, encouraging them to apply to our Chapter for grants for research. Cetacean research in Mexico is more active than it is right now in the Monterey Bay area and so by including grant requests from across the border Jerry enabled the Chapter to continue to actively support cetacean research. Several grants have been awarded to graduate students attending Mexican universities.

Locally, Jerry has strong ties to this community. As a result our Chapter is included and participates in many different events such as The Oceans Faire, when President Clinton and Vice-president Gore visited Monterey, Whale Fest Days, and many events at the Monterey Bay Aquarium, Point Lobos State Reserve and the Pacific Grove Museum of Natural History.

Continued on Page 2

Inside This Issue

Photo & Art Credits

Scientific Sketch of a Caribbean Monk Seal (Page 3): US National Museum

Jerry has also supported our Chapter as a presenter at our monthly meetings and has served as a Scientific Advisor since 1988. On a national level Jerry is a Chapter Delegate to the ACS National Board.

Additionally, Jerry has long supported conservation through his role as a State Park Ranger for over 20 years. During that time he was the dive master at Point Lobos for nearly 2 decades, was a guiding force for the Point Lobos Docent program, participated in the sea otter translocation project at San Nicolas Island and participated in baleen recovery projects in 1984 and 2000 during which blue and humpback whale baleen was recovered. These projects occurred during a time when there was little baleen available for educational purposes. The recovered humpback baleen is now on display at the Whaler's Cabin Museum at Point Lobos and the blue whale baleen has been distributed far and wide for educational uses.

Still actively involved in Point Lobos affairs, Jerry now serves on the Point Lobos Association Board of Directors and recently co-chaired the month long celebration of Point Lobos' 75th Anniversary as a California State Park.

Please join us to celebrate the many contributions to our Chapter and the world of nature of this very real Renaissance man.

CALENDAR

JULY – August 2008

July 10 – 31 Wild Things-An Adventure in Art and Nature. Explore and draw local marine and terrestrial wildlife with local artist Laurie Lindley Muender. Thursdays 3:30pm-5pm. Pacific Grove Museum of Natural History. Ages 8 to 15- $50 session or $15 each class.

July 12 – Aug. 9, July 26 ACS L.A. Blue Whale Trips. 8 am-4 aboard the 78' Condor Express. Santa Barbara, CA. Cost is $93-$104. For more info contact Diane Alps at 310-548-7821.

July 19 MBARI Open House: 12 noon - 5 pm Moss Landing Harbor.

Aug 12 Sea to Shore Lecture Series 7:00 pm Santa Barbara Museum of Natural History: Blue Whale Strandings Paul Collins and Michelle Burman..

Aug12-15 Conference: Acoustic Communication By Animals. Oregon State University. Contact Sara Heimlich at 541-807-0328

August 16 ACS Monterey Bay Whalewatch Fundraiser. 9am-1:30 pm. Cost of trip is $50. Trip will take place on the 70ft Sea Wolf. Great local marine biologist and naturalist will be on-board. Contact Tony Lorenz for info and reservations at 831-648-8968 or Jerry Loomis at 831-419-1051.

November 2008

AMERICAN CETACEAN SOCIETY'S BIENNIAL CONFERENCE NOVEMBER 14-16 2008. MONTEREY, CA.

World-renowned cetacean experts will gather in Monterey to discuss science, conservation, and policy. Field trips will be held on Nov. 14 and will include whale watching on Monterey Bay as well as kayaking in Elkhorn Slough and coastal wilderness hikes. Location for the conference will be the Monterey Beach Hotel in Monterey, CA. More info will be forthcoming.

Nov 17- 18 SPLASH Conference also to be held at the Monterey Beach Hotel. Biologist John Calambokidis and Dr. Bruce Mate will be present.

Academic Classes and Lectures in Monterey Bay

UCSC Marine Mammal Courses:
Biology of Marine Mammals Summer Session 2 July 28-Aug 29 (900am-12:30 pm) Course held at Long Marine Lab 3 miles off campus.

Biology of Marine Mammals Lab 2 units Summer Session 2 Wed-Fri (200pm-5:30pm) Course held at Long Marine Lab 3 miles off campus.

The Ecology and Conservation of Marine Birds and Mammals 5 units. Summer Session2 July 28-Aug 29 (830am-1200pm). Class will be held at Long Marine Lab 3 miles off campus

More classes on Page 3

UCSC Marine Science Illustration 5 units. Summer Session 1: Tue and Thu (9am-1230pm). Class meets at 1101 Pacific Ave. Downtown Santa Cruz

UCSC Marine Science Class: 5 units. Life in the Sea-Summer Session 2 July 28-Aug 29 Mon Wed Fri (930am-1200pm). Class meets on campus

New Zealand Moves To Protect Rare Dolphins

WELLINGTON - New Zealand plans to ban commercial fishing near its coast and set up marine reserves to protect the rare Hector's dolphins, a government minister said on Thursday.

The Hector's dolphin is estimated to number around 7,400 from 29,000 in the late 1970s. However, one of its sub-species, the Maui dolphin, is said to be the rarest in the world and facing extinction with as few as 111 animals left.

Fishing is blamed for up to three-quarters of the known deaths of Hector's dolphins.

"The measures strike the best achievable balance between the protection of these iconic dolphins and the activities of our commercial and recreational fishers," said Fisheries Minister Jim Anderton.

He said the measures were estimated to cost the commercial fishing industry up to 295 jobs and NZ$79.1 million over the next 10 years.

The dolphins grow to around 1.4 metres (40 inches) compared with up to 4 metres for the common Bottlenose dolphin, live around 20 years, and breed slowly.

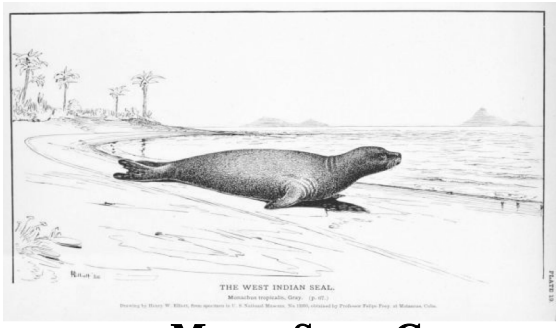
They usually live in small groups of no more than five and feed on inshore fish species, which brings them into contact with fishing nets.

However, conservationists said the measures were barely adequate. "At best today's decision is a half measure that fails to ensure the dolphins' recovery or survival," said Dr Barbara Mass of the Care for the Wild International group.

The commercial fishing industry said the decision would not save any more dolphins, but would ruin some businesses.

(Reporting by Gyles Beckford; Editing by Sanjeev Miglani)

www.planetark.com



Caribbean Monk Seal Gone Extinct From Human Causes, NOAA Confirms

ScienceDaily (June 9, 2008) — After a five year review, NOAA's Fisheries Service has determined that the Caribbean monk seal, which has not been seen for more than 50 years, has gone extinct — the first type of seal to go extinct from human causes.

Monk seals became easy targets for hunters while resting, birthing, or nursing their pups on the beach. Overhunting by humans led to these seals' demise, according to NOAA biologists.

The last confirmed sighting of the seal was in 1952 in the Caribbean Sea at Seranilla Bank, between Jamaica and the Yucatán Peninsula. This was the only subtropical seal native to the Caribbean Sea and Gulf of Mexico.

"Humans left the Caribbean monk seal population unsustainable after overhunting them in the wild," said Kyle Baker, biologist for NOAA's Fisheries Service southeast region. "Unfortunately, this lead to their demise and labels the species as the only seal to go extinct from human causes."

Caribbean monk seals were listed as endangered on March 11, 1967, under the Endangered Species Preservation Act, and relisted under the Endangered Species Act on April 10, 1979. Since then, several efforts have been made to investigate unconfirmed reports of the species in or near the Caribbean Sea, Gulf of Mexico, southern Bahamas, and Greater Antilles. These expeditions only confirmed sightings of other seal types, such as stray arctic seals.

Five-year status reviews are a requirement of the Endangered Species Act to ensure that the status of a species listed as threatened or endangered remains accurate and has not changed,

for better or worse. The most recent review began in 2003.

NOAA's Fisheries Service plans to publish a proposed rule in the Federal Register, seeking public comment to permanently remove Caribbean monk seals from the Endangered Species List. Species are removed from this list when their populations are no longer threatened or endangered, or when they are declared extinct.

"Worldwide, populations of the two remaining monk seal species are declining," said Baker. "We hope we've learned from the extinction of Caribbean monk seals, and can provide stronger protection for their Hawaiian and Mediterranean relatives."

Hawaiian and Mediterranean monk seals are endangered and at risk of extinction with populations dipping below 1,200 and 500 individuals, respectively.

NOAA's Fisheries Service is responsible for protecting the Hawaiian monk seal. That population is declining at a rate of about four percent per year, and NOAA biologists predict the population could fall below 1,000 animals in the next three to four years, placing the Hawaiian monk seal among the world's most endangered marine species. Unlike the Caribbean monk seal, Hawaiian monk seals face different survival challenges, such as lack of food sources for young seals, entanglement in marine debris, predation by sharks, and loss of haul-out and pupping beaches due to erosion.

"The Hawaiian monk seal is a treasure to preserve for future generations," said Bud Antonelis, biologist for NOAA's Fisheries Service Pacific Islands Fisheries Science Center. "NOAA's Fisheries Service has developed a monk seal recovery plan, but we need continued support from organizations and the public if we are to have a chance at saving it from extinction. Time is running out."

Other species of marine mammals that have gone extinct in modern times include the Atlantic gray whale (1700s or 1800s) and stellar sea cow (late 1700s), presumably due to overhunting by whalers. Exploitation of Caribbean monk seals began during the same time period.

Caribbean monk seals were first discovered during Columbus's second voyage in 1494, when eight seals were killed for meat. Following European colonization from the 1700s to 1900s, the seals were exploited intensively for their blubber, and to a lesser extent for food, scientific study and zoological collection. Blubber was processed into oil and used for lubrication, coating the bottom of boats, and as lamp and cooking oil. Seal skins were sought to make trunk linings, articles of clothing, straps and bags.

Scientists are unsure about exactly when Caribbean monk seals went extinct. Although there have been no confirmed sightings since 1952, it is conceivable that undetected seals persisted for a short period thereafter. The seals lived 20 to 30 years, so experts believe that some adults possibly lived into the 1960s or 1970s.

Adapted from materials provided by National Oceanic And Atmospheric Administration.

BLUE WHALE SONG IS GETTING DEEPER

By Richard Gray, - The haunting song of the world's biggest animal, the blue whale, is getting deeper, researchers have discovered. Underwater recordings of the giant endangered mammals have revealed that the tone of their rhythmic pulses and moans has become steadily lower as their population have slowly recovered after nearly being wiped out by whaling.

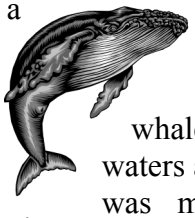
Marine biologists believe the changes offer a new insight into blue whale culture as entire populations alter the tone of their songs as they grow in numbers.

Professor John Hildebrand, a blue whale expert at Scripps Institution of Oceanography at the University of California in San Diego, has used recordings of blue whales since the 1960s to track the changes in their songs. He found that in 1962 blue whale calls were at a frequency of around 22Hz, well below the range of human hearing, but last year had decreased even further in frequency to around 15Hz. He said: "This is giving us an insight into the culture of blue whales as they are clearly listening to each other's songs and changing them.

It takes a conscious decision to make the calls deeper, so it is a reflection of what is going on in the population.

"These animals have a finite lung capacity, so their songs are a trade off between frequency and volume. They can either make the song really loud or really deep. As their numbers have slowly increased after the devastation caused by whaling, they are having to communicate over smaller distances so their songs don't need to be as loud and they can make them deeper."

The findings are the latest to offer a glimpse into the mysterious world of these majestic creatures.



Blue whales, which can grow up to 110 feet in length, are notoriously shy and difficult to study. Before large-scale hunting, the global blue whale population was thought to have been around 200,000 animals, but numbers fell to just a few hundred by the 1960s when a hunting ban was introduced. The population has since recovered to around 4,500 animals.

Professor Hildebrand has also discovered that blue whales in different parts of the world use different "dialects" in their songs. Only the males sing and it is thought they are attempting to attract mates or to communicate to other males during the mating season. But other researchers believe whale song is a more complicated form of communication than simply trying to attract a female.

Professor David Rothernberg, a musician and philosopher at the New Jersey Institute of Technology, has spent the past three years attempting to communicate with whales through his own musical instruments.

Using hydrophones linked to microphones he has played his clarinet and saxophone to a range of whale species, including the most vocal of all sea mammals the humpback whale. He claims the whales responded to his music and interacted with him in an underwater "jam" session.

In a new book, Thousand Mile Song, he details his journey to play music with the whales and includes some recordings of the interactions.

He said: "For me, I felt like they could recognise the music I was making and were responding to that. There was a very special interaction with a humpback and he seemed to change his song so that by the end it was hard to tell which was the clarinet and which was the whale.

These are incredibly social animals and they seem to change their songs regularly. When one of them innovates, this gets picked up by the rest of the population and they all start singing in the same way."

www.telegraph.co.uk

CHILEAN WATERS DECLARED WHALE SANCTUARY

By Sarah Clarke - Chile has declared the whale a national monument and made Chilean waters an official whale sanctuary. The declaration was made on the first day of talks at the International Whaling Commission (IWC) meeting in Santiago.

Chilean President Michelle Bachelet made the announcement before a group of environment ministers in a former whaling port called Quintay, south of Santiago.

"That means Chile is committed to the whales and we will do as much as we can to support the fight for the conservation of the whales," she said.

In the audience was Australian Environment Minister Peter Garrett, who applauded the move to protect the whale. "They're going to build an industry of whale-watching, hopefully in time, as we have in Australia," he said.

This week, he will deliver a report to the IWC calling for the regulatory body to recognize whale-watching as way of bolstering international protection.

http://www.abc.net.au/news/stories/2008/06/24/2284227.htm

WHALING BODY AGREES PATH TO PEACE

By Richard Black, Santiago, Chile- The global body responsible for whales and whaling has opened the door to the eventual partial lifting of the commercial whaling ban.

The International Whaling Commission (IWC) adopted a reform path aimed at finding compromise between pro- and anti-hunting

countries. Delegates at the Commission's annual meeting in Chile agreed the current impasse should not continue.

Governments will try to agree to a package of measures by next year's IWC meeting.

To secure the agreement of whaling nations, it is likely that the essential ingredients of that package will have to include the partial resumption of commercial hunting, perhaps limited to coastal waters.

Some conservation groups approve of the endeavour because they believe it could lead to a reduction in the total number of whales killed each year, and greater regulation of hunting.

POLITICAL REALITIES

Moves to reform the organisation have been led by IWC chairman, William Hogarth.

"It has to work," he told delegates.

"We are the premium body set up for the conservation of whales, and we have to step up to the plate."

But while better conservation of whales is the prime aim of Dr Hogarth's country, the US, others including Norway, Iceland and Japan will be looking for recognition that sustainable whaling is legitimate.

Japan has played a prominent part in preliminary discussions over the past year, and is fully behind the reform initiative.

Officials say nothing is ruled out as part of a final package, even the possible end to its annual Antarctic hunt which is conducted under a clause permitting hunting for scientific purposes.

"We wish to see the end of special permit (scientific) whaling," said New Zealand's conservation minister Steve Chadwick.

"The commission has taken a big step forward by setting up this diplomatic process, but it will not be easy; the path ahead is formidable.

"Ninety-two percent of New Zealanders oppose commercial whaling - that is a political reality."

The task facing Ms Chadwick's government and others in the anti-whaling camp is to strike a deal that they can sell to their publics while also being acceptable to Japan - and to Norway, which hunts as many whales as Japan each year and which probably has more to lose from a change to the status quo.

UNIFIED OPPOSITION

Just about the only note of discord so far in this usually fractious meeting has come over subsistence hunting in Greenland.

The Arctic state has asked to add humpback whales to its annual hunt, which already includes minkes, fins and bowheads.

Greenland is still a territory of Denmark, which speaks for it in the IWC. But Denmark is also a member of the EU. And for the first time this year, EU states attending the IWC are supposed to agree a unified position on key issues before debates begin.

Some, notably the UK, were ferociously opposed to the humpback quota.

They considered that Greenland had not offered meaningful evidence that its people needed the extra meat - a condition for the awarding of subsistence licenses - and were concerned by a recent report from the World Society for the Protection of Animals (WSPA), showing that about 25% of the meat from the existing hunt was sold through supermarkets.

At a meeting on Monday night the EU agreed to oppose the quotas. Danish delegates walked out in protest; and without EU backing, the application is almost certain to fail.

http://news.bbc.co.uk/go/pr/fr/-/2/hi/science/nature/7472228.stm

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SIGHTINGS compiled by Monterey Bay Whale Watch. For updates see www.gowhales.com/sighting.htm

Date	#	Type of Animals
6/25 p.m.	12	Humpback Whales
6/25 a.m.	26	Humpback Whales
	75	Pacific White-sided Dolphins
	5	Harbor Porpoise
6/23 p.m.	9	Humpback Whales
	5	Harbor Porpoise
6/23 a.m.	28	Humpback Whales
	400	Pacific White-sided Dolphins
	12	Harbor Porpoise

Date	#	Type of Animals
6/22	7	Humpback Whales
	3	Long-beaked Common Dolphins
	12	Harbor Porpoise
6/21 p.m.	10	Humpback Whales
6/21 a.m.	12	Humpback Whales
	1400	Pacific White-sided Dolphins
6/20 p.m.	10	Humpback Whales
	6	Harbor Porpoise
6/20 a.m.	26	Humpback Whales
	2000	Pacific White-sided Dolphins
6/19 p.m.	8	Humpback Whales
6/19 a.m.	16	Humpback Whales
	2000	Pacific White-sided Dolphins
6/18	14	Humpback Whales
6/17 p.m.	8	Humpback Whales
	5	Harbor Porpoise
6/17 a.m.	18	Humpback Whales
	7	Killer Whales*
	140	Pacific White-sided Dolphins
	60	Risso's Dolphins
6/16 p.m.	12	Humpback Whales
	8	Harbor Porpoise
6/16 a.m.	14	Humpback Whales
	175	Pacific White-sided Dolphins
6/15 p.m.	8	Humpback Whales
	10	Harbor Porpoise
6/15 a.m.	12	Humpback Whales
	300	Pacific White-sided Dolphins
	1600	Risso's Dolphins
	250	Northern Right Whale Dolphins
	10	Harbor Porpoise
6/14 p.m.	6	Humpback Whales
	400	Pacific White-sided Dolphins
	250	Risso's Dolphins
6/14 a.m.	9	Humpback Whales
	90	Pacific White-sided Dolphins
	350	Risso's Dolphins
	25	Harbor Porpoise
6/13 p.m.	7	Humpback Whales
6/13 a.m.	16	Humpback Whales
	20	Harbor Porpoise
6/12 p.m.	12	Humpback Whales
	8	Harbor Porpoise
6/12 a.m.	33	Humpback Whales
	15	Harbor Porpoise
6/11	27	Humpback Whales
	13	Harbor Porpoise
6/10	42	Humpback Whales
	14	Harbor Porpoise
6/9 p.m.	29	Humpback Whales
6/9 a.m.	40	Humpback Whales
	400	Pacific White-sided Dolphins
	300	Risso's Dolphins
	1500	Northern Right Whale Dolphins
6/8 p.m.	26	Humpback Whales
6/8 a.m.	30	Humpback Whales
	350	Pacific White-sided Dolphins
	250	Northern Right Whale Dolphins
6/7 p.m.	26	Humpback Whales
	12	Harbor Porpoise
6/7 a.m.	34	Humpback Whales
	25	Pacific White-sided Dolphins
6/6 a.m.	38	Humpback Whales
6/5 p.m.	15	Humpback Whales
6/5 a.m.	27	Humpback Whales
	20	Pacific White-sided Dolphins
6/4	6	Humpback Whales
6/2	8	Humpback Whales
	10	Pacific White-sided Dolphins
	75	Risso's Dolphins
6/1	18	Humpback Whales
	45	Risso's Dolphins
	12	Harbor Porpoise

*transient types

NOTABLE BOOKS

Human Impacts on Ancient Marine Ecosystems. A Global Perspective- 2008 UC Press.
Edited by Torben Crick and John M Erlandson

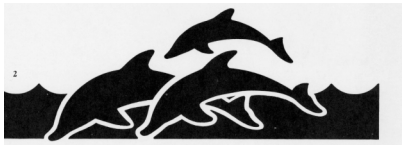
Sensory Evolution on the Threshold Adaptations in Secondary Aquatic Vertebrates
2008 UC Press. Edited by J.G.M Thewissen

The Worlds Protected Areas: Status,Values and Prospects in the Twenty First Century
2008 UC Press. Edited by Stuart Chape,Mark D Spaulding and Martin d. Jenkins

Wildlife of the North Atlantic A field guide for mariners and naturalist visiting Norway, Greenland, Newfoundland, British Isles, Faroes and Iceland.
Edited by Tony Soper and Illustrated by Dan Powell

National Geographic Kids-For Young Readers
SEA MONSTERS- A Prehistoric Adventure
2008 National Geographic Society.
Funded in part by THE NATIONAL SCIENCE FOUNDATION

American Cetacean Society
Monterey Bay Chapter
P.O. Box H E
Pacific Grove, CA 93950



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Membership level _____

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Soundings

American Cetacean Society- Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950
www.starrsites.com/acsmb

AUGUST 2008

INSIDE THIS ISSUE

August Meeting

Date: Thursday, August 28, 2008

Monthly meeting at Hopkins Marine Station, Lecture Hall. Boat Works Building (Across from the American Tin Cannery Outlet Stores).

Meeting is open to the Public

Time: 7:30 PM. PLEASE JOIN US AT 7:00 FOR REFRESHMENTS

Speaker: **Dr. Daniel P. Costa**

Title: To Be Announced

Dr. Dan Costa is currently a Professor of Ecology and Evolutionary Biology at the University of Santa Cruz. He has specialized on the physiological and ecological studies of marine mammals and seabirds for the last 33 years. He has extensive experience both in the lab and field with a large number of marine mammals and seabirds including wandering, black browed and gray headed albatrosses, Chinstrap, adelie and king penguins, sea otters, bottlenose dolphins, California, Galapagos, Australian and Steller sea lions, Antarctic, northern, Galapagos, Australian and New Zealand fur seals and on elephant, harbor and Weddell seals.

Dr. Costa continues to be a "prime mover" in the fast developing field of data collection through instrumentation attached to animals in the wild. He has extensive experience with the deployment of electronic tags on marine mammals and seabirds having been involved in the development of time depth recorders using both photographic and electronic methods since 1978. He was involved in the first deployment of time depth recorders on Weddell seals in 1978-79 and on elephant seals in 1983. Dr. Costa ranks as one of the founding principal investigators of the Tagging of Pacific Pelagics Program ("TOPP") and currently supervises the marine mammal and seabird components of TOPP.

At UCSC, Dr. Costa's Lab studies the adaptations of marine organisms to life in the marine environment especially the movements, foraging ecology and energetics of pinnipeds and seabirds. The research done there contributes to two major international initiatives: Tagging of Pacific Pelagics and Southern Ocean GLOBEC.

Please come and join us to take advantage of this opportunity to hear from this cutting edge scientist.

(Material adapted from internet sources: TOPP Researcher Information page; Costa Lab information pages and NOAA abstract and bio for TOPP seminar)

CALENDAR

AUGUST 16: ACS Monterey Bay
Whale watch Fundraiser

9am -1:30 pm. Cost of trip is $50. Trip will take place on the 70ft Sea Wolf. Great local marine biologists and naturalists will be on board. Contact Tony Lorenz for info and reservations at 831-648-8968 or Jerry Loomis at 831-419-1051.

SEPTEMBER 2008

The Lives of Insects: The Close Up Photographs of E.S. Ross, Ph.D. Pacific Grove Museum of Natural History. Through-October 25, 2008

September 3: Lecture- Carl Safina
Aquarium of the Pacific, Long Beach, CA
Topic TBA. Blue Ocean Institute.org

Saturday September 6: Cabrillo's Landing: Reenachment of Cabrillo's landing on San Miguel Island. Explore pristine coastline, Cabrillo's monument, caliche forest, the natural history of San Miguel Island, and observe various species of marine mammals during passage to and from the island. Last years trip saw between 50-75 Blue Whales. Cost $100.00. For info call the Cabrillo Marine Aquarium at 310-548-7562.

Saturday September 20, 9 am-12 noon California Coastal Cleanup Day: Various beaches will be available for cleanup throughout Monterey Bay.

Thursday September 25, 700 pm: Sea Otter Awareness Week Lecture: Long Marine Lab
David Jessup will speak on current issues regarding Sea Otters.

September 26-27 Monterey Bay Birding Festival: Pelagic trips on Monterey Bay, Kayaking Elkhorn Slough, Beach & Coastal Birding Walks, Seminars, and Workshops are just a fraction of the weekends planned activities. For more info go to: www.montereybaybirding.org

November 2008

AMERICAN CETACEAN SOCIETY'S
BIENNIAL CONFERENCE
NOVEMBER 14-16 2008.
MONTEREY, CA.

World-renowned cetacean experts will gather in Monterey to discuss science, conservation, and policy. Field trips will be held on Nov. 14 and will include whale watching on Monterey Bay as well as kayaking in Elkhorn Slough and coastal wilderness hikes. Location for the conference will be the Monterey Beach Hotel in Monterey, CA. More info will be forthcoming.

Nov 7-9: 12th Annual Sitka Whale Festival
Speakers will include Dr. Bruce Mate, Craig Matkin, Dr Scott Shaffer, Dr Dan Crocker
Field Trips to be included. For registration and more info call 907 747-7964

Nov 21-23: Symposium on Monitoring Strategies for Marine Mammal Populations, La Rochelle France. Hosted by the University of Rochelle

LOOKING AHEAD 2009

Whale Quest 2009 February 13-15 2009
Kapalua Maui, Hawaii. Educational Presentations by Renowned Whale Researchers, Art, Photos, and Interactive Educational Exibits. For Info go to whaletrust.org/educationwhalequest.html

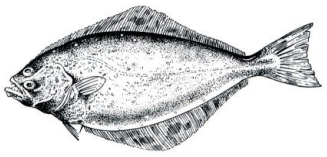
Dr. Lyall Watson who wrote more than 20 books including Sea Guide To Whales Of The World has left us at the age of 69. Dr. Watson studied marine biology and anthropology before taking his PhD in ethology. Dr. Watson campaigned vigorously for an end to commercial whaling and represented the Seychelles on the International Whaling Commission. In ten years aboard the MS Lindblad Explorer he probably saw more living species of cetaceans than could be claimed by any other individual. ACS thanks you for your contribution.

Fisheries, Not Whales, To Blame For Shortage Of Fish

ScienceDaily (June 30, 2008) — The argument that increasing whale populations are behind declining fish stocks is completely without scientific foundation, leading researchers and conservation organizations said today as the International Whaling Commission opened its 60th meeting in Santiago, Chile.

The Humane Society International, WWF, and the Lenfest Ocean Program today presented three new reports debunking the science behind the 'whales-eat-fish' claims emanating from whaling nations Japan, Norway and Iceland. The argument has been used to bolster support for whaling, particularly from developing nations.

"It is not the whales, it is over-fishing and excess fishing capacity that are responsible for diminishing supplies of fish in developing countries," said fisheries biologist Dr. Daniel Pauly, director of the University of British Columbia Fisheries Centre. "Making whales into scapegoats serves only to benefit wealthy whaling nations while harming developing nations by distracting any debate on the real causes the declines of their fisheries."



Who's eating all the fish? The food security rationale for culling cetace the report co-authored by Dr Pauly for the Humane Society International contrasts "the widely different impacts of fisheries and marine mammals" with fisheries targeting larger fish where available and marine mammals consuming mainly smaller fish and organisms.

"The decline of the mean trophic levels of fisheries catch over the past 50 years is a signature of fishing down marine food webs and leaves marine mammals exonerated," the report said.

The report also probes the culling whales increases food security for the poor argument by examining the final destination of catches of coastal fisheries in the South Pacific, Caribbean and West Africa. With less than half the catch going to domestic markets and the majority "gravitating toward the markets of affluent developed countries, one can speak of fish migrating from the more needy to the less needy".

Also presented to the IWC Scientific Committee were the preliminary results into analysis of the interaction between whales and commercial fisheries in north west Africa. The modeling, funded by the Lenfest Ocean Program, shows no real competition between local or foreign fisheries and great whales.

The whales spend only a few months in the area during their vast seasonal migrations, eat relatively little while breeding and tend to consume fundamentally different types of food resources than the marine species targeted by both local and foreign fisheries. Inserting modeling assumptions to presume that whales are not breeding in the area and eat species important to the fishing industry still fails to show whales are a significant source of competition to fishing.

Also released today is review of the scientific literature originating from Japan and Norway - the two countries most strongly promoting the idea that whales pose problems for fisheries. The review, funded by WWF, found significant flaws in much of the science and concluded that "where good data are available, there is no evidence to support the contention that marine mammal predation presents an ecological issue for fisheries."

Dr. Susan Lieberman of WWF said "These three reports provide yet more conclusive evidence that whales are not responsible for the degraded state of the world's fisheries. It is now time for governments to focus on the real reason for fisheries decline – unsustainable fishing operations."

World Wildlife Fund (2008, June 30). Fisheries, Not Whales, To Blame For Shortage Of Fish. ScienceDaily. www.sciencedaily.com/releases/2008/06/080629144231.htm

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Faroe whales show new pollutant spreads worldwide

By Alister Doyle, Environment Correspondent

OSLO (Reuters) - People who eat whale meat in the remote Faroe Islands in the North Atlantic have high levels of an industrial toxin in their blood in a

worrying sign that the pollutant has spread worldwide, scientists said on Thursday.

"This pollution is a new health concern for the Faroese and many populations worldwide," said Philippe Grandjean, an environmental health expert at the Harvard School of Public Health and the University of Southern Denmark.

"We know very little on the toxicity in humans so far, even less in regard to whales," he told Reuters of polyfluoroalkyl compounds (PFCs), used in products such as water or grease repellents for textiles, fire-fighting foams, or some papers.

A study with scientists in the Faroe Islands, Denmark and the United States showed higher traces of PFCs in the blood of people who ate whales in the Faroes -- between Norway and Iceland -- comparable to those in people in industrial nations closer to the sources of the chemicals.

Pilot whales, a small species caught in the Faroe islands, are at the top of the marine food chain. PFCs apparently build up in their muscles and liver because they consume smaller fish which have in turn absorbed PFCs washed into the seas.

The children and mothers surveyed in the Faroes who did not eat much whale meat did not have such high concentrations.

For one of the nine types of PFCs known as PFOS, "a single dinner with whale meat every two weeks is associated with an increase of 25 percent in the blood concentration," he said.

Initially, widening PFC contamination was thought to come from everyday exposure to items such as textiles or furniture containing PFCs. "Now we are seeing evidence that they are widespread in the environment and building up," Grandjean said.

The study, issued online, would be in August edition of the journal Environmental Science & Technology. A separate study had also shown high levels of PFOS in polar bear livers.

A report by the European Food Safety Authority this week said that some PFCs have produced tumors in rats but do not seem to cause cancers in humans. It said more data was needed. One study has linked PFCs to lower human birth weights.

Grandjean said that a couple of the people in the Faroes survey had blood levels of PFOS that exceeded the safe limit implied by the Food Safety Authority report.

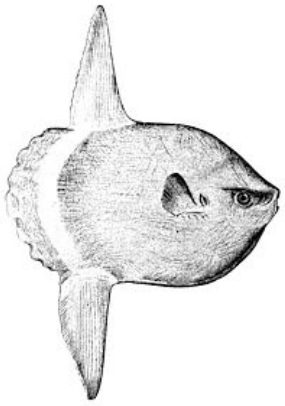
Worries about the dispersal of the chemicals in the environment led 3M Co to change the formula of its stain repellant Scotchgard in 2002 to eliminate use of PFOS.

http://www.ecodiario.es/noticias/noticias/672511/07/08/Faroe-whales-show-new-pollutant-spreads-worldwide.html

ACS L.A. BLUE WHALE TRIP FINDS BLUE WHALES.

On July 12th 2008, 50 enthusiastic whale watchers boarded the Condor Express in Santa Barbara, CA with an elevated anticipation of observing the biggest animal in the history of life on earth, the Great Blue Whale. We were not dissapointed. We had flat calm ocean conditions and exceptional visibility. We had our first blue whale sighting, a group of three, after spending time with two Minke Whales and several hundred Long-Beaked Common Dolphin. We spent upwards of an hour with this group and then headed west to try and find a larger aggregation of blue's. We found three more pairs and a single blue whale all feeding off Santa Rosa Island. We also spotted at least five more blues in the distance in the direction of San Miguel Island. All in all we observed ten blue whales and saw five to seven more in the distance as well as a thousand more Long Beaked Common Dolphin.

Thanks to Captain Matt Curto and the crew of the Condor Express for another incredible day of whale-watching on the Condor Express.



Final Species Account:
10 Blue Whales
2 Minke Whales
1200 Long- Beaked Common Dolphin
1 Northern Elephant Seal
1 Large Mola Mola
100's of CA Sea Lions

Monterey Bay is Pulsing with Life

Monterey Bay is living up to its reputation as one of the worlds most diverse and biologically productive marine ecosystems in the world. The spring and summer of 2008 has seen the return of our northwest winds and with it significant coastal upwelling that has generated a plethora of prey resources for some of the oceans most magnificent creatures.

This observer has been on the Sea Wolf 2 several times this spring and summer and on every trip I have witnessed the awesome spectacle and grandeur of this ocean planet. Tuesday July 15th was just one example of what Monterey Bay can produce. Over a measley four and one half hours aboard the Sea Wolf 2, we observed 22 Humpback Whales, 5 Killer Whales, 450 Risso's Dolphins, 100 Northern Right Whale Dolphins, 50 Pacific White-Sided Dolphins, 4 Dall's Porpoises, 2 Northern Fur Seals, 6 Blue Sharks, 8 Black Footed Albatross, 1000's of Sooty Shearwaters and numerous other species of seabirds.

Killer Whales were observed on at least 16 trips aboard the Sea Wolf 2 and numerous other times by Nancy Black on her research boat.

In addition to Humback Whales and Killer Whales, staggering numbers of various dolphin species have been observed including record numbers of Northern Right Whale Dolphins. One trip saw over 6,000 Northern Right Whale Dolphins, 1,200 Pacific White Sided Dolphin, and 800 Risso's Dolphins. Other observation on Monterey Bay have included Basking Sharks, Blue Sharks, Mola Mola, Northern Fur Seals, Northern Elephant Seals and incredible up close looks at Black-Footed Albatross.

Blue Whales have been seen on four different occasions but appear to have been traveling through Monterey Bay, probably, in search of adult krill. Krill is abundant in Monterey Bay and conditions seem favorable for this greatest of whales to begin their summer feeding in Monterey Bay soon. We are waiting patiently for you.

-Tony Lorenz, ACS/MB.

Inspiring Change at The 60th Annual International Whaling Commission Meeting, Santiago, Chile

It was 4:30 pm on the last day of my three-month field season with the South Pacific Humpback Whales. I was with four whales resting in seventy feet of water in a location that offered 150 feet of visibility. Up until that moment, out of the many whale encounters that season, only four were intimate and close enough to allow me to begin to explore the process of producing life-size composite photographs of whales. My work is entirely on their terms, entirely dependent upon their interest in me. I wait patiently, strategically positioned, motionless, and predictable when I swim. I had four encounters where whales gently approached me at distances of two to six feet, allowing my camera to record their bodies and their eyes with tremendous detail. They were so gentle with me looking into my eyes as they delicately adjusted their pectoral fins around me when my form was not perfect.

By 5:00 pm of my last encounter of the season I realized that these four whales would not initiate a close inspection of me. I knew we had to return to port, to begin my re-entry back to life in the states. I felt a heaviness in my heart knowing that I was unable to produce imagery I thought compelling enough to begin exhibiting in public spaces within whaling nations.

Since my return home from my last field season sixteen months ago I have worked fulltime to promote my work and mission to gain sufficient support for the resumption of my field work with the whales. In that time I have released ten large-scale photographs as twenty print limited editions. With my vision yet to be fully realized, I released these photographs to fund the next phase of my fieldwork comprised of over forty months at sea with over five endangered whale species.

It didn't occur to me at the time that my current collection of photographs would be compelling enough to exhibit to my intended audiences, to those who either consume these creatures or have no interest in them or their plight. I was surprised and grateful when the World

Society for the Protection of Animals (WSPA) contacted me earlier this year to explore the possibility of exhibiting my work at the International Whaling Commission meeting in Santiago, Chile.

During the sixty-year history of annual meetings held by the International Whaling Commission, whales have never had the opportunity to represent themselves on any meaningful level. This year's meeting marked a humble beginning for me to begin to share these creatures on their scale with the delegations and attendees. It was a tremendous learning opportunity to finally share my work with its intended audiences.

I feel a renewed hope that these creatures will be the ones to ultimately inspire their preservation when they are given opportunities to be intimately documented and communicated to humanity on their scale.

The International Whaling Commission was formed in 1948 after most large whale species were decimated to two percent of their original numbers, all for the purpose of producing dried animal feed and butter substitutes. It was the IWC's intention to regulate whaling to make it sustainable. During the following decades that proved to be impossible as whaling nations continued to illegally and indiscriminately hunt any species of any age without any repercussions.

Sitting in the meetings, I had the sense of being in a time capsule. I felt as though I were watching a living collective fossil. This forum is painfully sterile where for the past six decades these creatures have been distilled down to quotas and statistics. And beginning in the 1970's with the anti-whaling movement it quickly became a heavily polarized, ego driven forum still completely removed from the actual realities being debated. It has been my intention to begin to bring the reality of whales, a reality which cannot be put into words, and can only be communicated visually and audibly directly from these creatures, to these meetings and to countries that continue to hunt or harm these creatures.

During the week long meeting my ten large-scale Humpback Whale photographs remained on exhibit at the Hotel / Conference Center hosting the IWC meeting. The ten photographs on exhibit included stories in three languages of my most close and intimate encounters with these creatures. They hung on easels in the hotel lobby where all in attendance had to walk pass to their hotel rooms and to the conference room hosting the IWC meetings.

The one photograph on display that represents my vision, my first to-scale photograph of a humpback whale calf's face entitled "Humpback Whale Calf I", made an impact. I knew it had stirred unwanted emotions when the IWC turned down WSPA's and my request to display it without associate text in the meeting break out area. Simply an intimate portrait of a three-week-old whale with its inquisitive eye in graphic detail was deemed to be too controversial to exhibit directly outside the conference room. This gesture gave me insight that perhaps the pro-whaling delegations may have a conscience.

As someone who spends a great deal of time in the water with whales, I can tell you that words fail when attempting to describe the effect of a close eye to eye encounter initiated by these creatures. I feel a renewed hope that these creatures will be the ones to ultimately inspire their preservation when they are given opportunities to be intimately documented and communicated to humanity on their scale. We have done our best to save them, but we are failing; we are becoming more polarized and more removed from the realities of these creatures. It's time to let them inspire change in a way that our species is unable to do. It is my hope that I can continue to be the conduit between species, to bring these creatures to humanity on a scale and depth that has yet to be fulfilled in the four-decade movement to save these creatures.

I want to thank WSPA, The American Cetacean Society – Monterey Bay Chapter, the Sandler Foundation, and the collectors of my work who are all responsible for the success of my exhibition at the 60th Annual IWC meeting.

--Bryant Austin
www.studiocosmos.com

SIGHTINGS compiled by Monterey Bay Whale Watch. For updates see www.gowhales.com/sighting.htm

Date	#	Type of Animals
8/1	8	Humpback Whales
	3	Blue Whales
	300	Pacific White-sided Dolphins
	400	Risso's Dolphins
	350	Northern Right Whale Dolphins
7/31 p.m.	5	Humpback Whales
7/31 a.m.	12	Humpback Whales
	7	Harbor Porpoise
7/30 p.m.	2	Humpback Whales
	10	Harbor Porpoise
7/30 a.m.	1	Humpback Whale
	8	Harbor Porpoise
7/29 p.m.	2	Humpback Whales
	6	Harbor Porpoise
7/29 a.m.	1	Humpback Whale
	65	Risso's Dolphins
7/28 p.m.	5	Humpback Whales
7/28 a.m.	12	Humpback Whales
	35	Risso's Dolphins
7/27 p.m.	4	Humpback Whales
7/27 a.m.	8	Humpback Whales
	10	Dall's Porpoise
7/26 p.m.	5	Humpback Whales
7/26 a.m.	8	Humpback Whales
	200	Pacific White-sided Dolphins
	300	Risso's Dolphins
	250	Northern Right Whale Dolphins
7/24 p.m.	18	Humpback Whales
7/24 a.m.	30	Humpback Whales
	50	Pacific White-sided Dolphins
	100	Risso's Dolphins
7/23 p.m.	28	Humpback Whales
7/23 a.m.	42	Humpback Whales
	25	Risso's Dolphins
	1	Fur Seal
7/22 p.m.	25	Humpback Whales
7/22 a.m.	24	Humpback Whales
	450	Pacific White-sided Dolphins
	400	Risso's Dolphins
	600	Northern Right Whale Dolphins
7/21 p.m.	22	Humpback Whales
7/21 a.m.	23	Humpback Whales
	1	Fin Whale
	25	Risso's Dolphins
7/20 p.m.	25	Humpback Whales
	2	Bottlenose Dolphins
7/20 a.m.	27	Humpback Whales
7/19 p.m.	9	Humpback Whales
7/19 a.m.	15	Humpback Whales
	20	Risso's Dolphins
7/18 p.m.	2	Humpback Whales
7/18 a.m.	12	Humpback Whales
	25	Pacific White-sided Dolphins
	12	Dall's Porpoise
7/17	2	Humpback Whales
	8	Killer Whales (offshore type)
7/16 p.m.	10	Humpback Whales
	2	Long-beaked Common Dolphins
7/16 a.m.	8	Humpback Whales
	7	Killer Whales (offshore type)
	200	Pacific White-sided Dolphins
	2	Long-beaked Common Dolphins
	200	Risso's Dolphins
	250	Northern Right Whale Dolphins
	15	Killer Whales*
7/15 p.m.	5	Humpback Whales
	60	Pacific White-sided Dolphins
	250	Risso's Dolphins
7/15 a.m.	22	Humpback Whales
	5	Killer Whales *
	70	Pacific White-sided Dolphins
	2	Long-beaked Common Dolphins
	450	Risso's Dolphins
	100	Northern Right Whale Dolphins

*transient types

NOTABLE BOOKS

Ocean Images: the California Sea Lion
Text and Photographs by Robert Bradbook Perry. Available at MarineBioPhotography.com

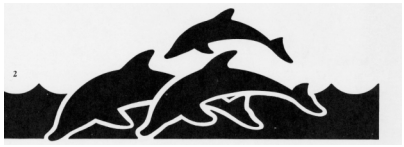
Ocean Images: The Brown Pelican Book
Text and Photographs by Robert Bradbook Perry. Available at MarineBioPhotography.com

Channel Islands National Park and National Marine Sanctuary. Photography by Tim Hauf, Text by Conger Beasley Jr.

Whales, Dolphins and Seals; A Field Guide to Marine Mammals of the World. Hadoram Shirihai and Brett Jarrett 2008 A and C Black Publishing

Journal of Marine Animals and Their Ecology (JAMATE). www.oers.cal/journal/journal.html

American Cetacean Society
Monterey Bay Chapter
P.O. Box H E
Pacific Grove, CA 93950



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Membership levels and Annual dues:
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Soundings

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PO Box H E, Pacific Grove, CA 93950
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SEPTEMBER 2008

September Meeting

Date: **Thursday, September 25, 2008**

Monthly meeting at Hopkins Marine Station, Lecture Hall. Boat Works Building (Across from the American Tin Cannery Outlet Stores).

Meeting is open to the Public

Time: **7:30 PM. PLEASE JOIN US AT 7:00 FOR REFRESHMENTS**

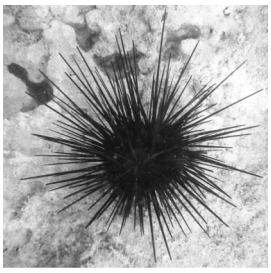
Speaker: **Tom Kendrick, Sea Urchin Diver and Author**

Title: **Swimming with Sea Monsters: 22 years as a California Sea Urchin Diver**

Sea urchins, those spiny echinoderms, are well known in the Monterey Bay area. Some humans like to eat them, as do some otters. They are significant factors when considering kelp forest ecology and have been the subject of controversy between humans and otters.

Our speaker this month will provide interesting insight into a part of the sea urchin's life: from the perspective of a commercial diver in the urchin fishery. Tom will trace the history of the fishery from its origins, through the "gold rush", the collapse and finally sustainability.

Tom's diving career originated from his search for secret surf spots around the Channel Islands and Santa Barbara. Sea urchin diving took Tom from Santa Barbara to Mexico, Oregon, Washington, Alaska, northern California and the shark infested Farallon Islands. His book, Bluewater Gold Rush, which describes the urchin fishery from 1978 through 1996, has been featured in California Diving News, The Surfer's Journal, National Fisherman, Historical Diving Magazine, and the PBS television show Huell Howser's California's Gold. A screenplay is currently in production.



Please join us for what promises to be an informative and entertaining presentation about a fishery that has realized sustainability.

INSIDE THIS ISSUE

Photo Credits

Sea Urchin (this page top top)**:** *http://www.flickr.com/photos/jurvetson/751085804/* Author: Steve Jurvetson

Sea Urchin (this page bottom): *http://bcrc.bio.umass.edu/vifishandwildlife/Education/FactSheet/Images/Diadema1.jpg*

Leatherback Sea turtle (pg 5): *http://www.astc.org/iglo/?p=115*

CALENDAR

SEPTEMBER 2008

The Lives of Insects: The Close Up Photographs of E.S. Ross, Ph.D. Pacific Grove Museum of Natural History. Through-October 25, 2008

Saturday September 20, 9am-12: California Coastal Cleanup Day: Various beaches will be available for cleanup throughout Monterey Bay.

Thursday Sept 25, 7:00 pm: Sea Otter Awareness Week Lecture: Long Marine Lab. David Jessup will speak on current issues regarding Sea Otters.

Friday Sept 26, 12 noon: Hopkins Marine Station Mike Heithaus, Florida International University. Beyond the body count: non-lethal and indirect effects of tiger sharks in a pristine sea-grass community.

September 26-27 Monterey Bay Birding Festival: Pelagic trips on Monterey Bay, Kayaking Elkhorn Slough, Beach & Coastal Birding Walks, Seminars, and Workshops are just a fraction of the weekends planned activities. For more info go to: www.montereybaybirding.org

Saturday Sept 27, 2008: CA Academy of Sciences Grand Reopening: For Info Call 415-479-8000.

October -November 2008

October 30-November 2, 2008:
California Science Education Conference; San Jose Convention Center

Nov 7-9: 12th Annual Sitka Whale Festival
Speakers will include Dr. Bruce Mate, Craig Matkin, Dr Scott Shaffer, Dr Dan Crocker
Field trips to be included. For registration and more info call 907 747-7964.

Nov 21-23: Symposium on Monitoring Strategies for Marine Mammal Populations, La Rochelle France. Hosted by the University of Rochelle

AMERICAN CETACEAN SOCIETY'S
BIENNIAL CONFERENCE
NOVEMBER 13-16 2008

World-renowned cetacean experts will gather in Monterey Bay to discuss science, conservation, and policy. Field trips will be held on Nov. 14 and will include whale watching on Monterey Bay as well as kayaking in Elkhorn Slough and coastal wilderness hikes.
Conference Itinerary Includes:

Thursday November 13th: Photography Workshop

Friday November 14th: All day field trip aboard the Sea Wolf. Field trip will depart at 8:00 am and return at approximately 4:00 pm. In addition to searching for Blue and Humpback Whales, 5 species of dolphin, 2 species of porpoise, and 2 species of beaked whales are possible.
Conference field trips in 1992 and 2000 both produced incredible sightings of Killer Whales. Observers on the 1992 trip observed Offshore Killer Whales and observers on the 2000 trip witnessed transient Killer Whales preying on California Sea Lions. Our trip leaders for this trip will be captain Richard Ternullo and Nancy Black. California's pre-eminent experts on killer whales.

Sat and Sun Nov 15th and 16th: All day conference to be held at Embassy Suites. Cetacean experts from around the world will be present to give presentations on cetacean biology, ecology and conservation.

For more information go to ACS National website for updates or call ACS National at 310 548-6279.

LOOKING AHEAD 2009

Whale Quest 2009 February 13-15 2009
Kapalua Maui, Hawaii. Educational Presentations by Renowned Whale Researchers, Art, Photos, and Interactive Educational Exhibits. For Info go to whaletrust.org/educationwhalequest.html

36th Annual Meeting Of The Pacific Seabird Group
Hakodate, Hokkaido, Japan February 18-26, 2009
Field trips include visiting the winter roosting area of the Steller Sea Eagle

MARINE BIOLOGIST: DECLINE OF BLUE WHALE LED TO FALL OF KRILL; 'ANTARCTIC PARADOX' LINKED TO EXCREMENT

Berlin, Germany -- The near-eradication of the blue whale in the waters of the Antarctic during the early 20th century led to a paradoxical fall-off in krill, the small shrimp-like creatures on which they feed, a German report said Wednesday. Marine biologist Victor Smetacek told the German weekly Die Zeit that blue whales had once consumed 180 million tons of krill a year in the Southern Ocean - more biomass than the entire world fishing and aquaculture industry produces annually.

The "Antarctic Paradox" results from a biological cycle in which the whales play a key role in providing the iron to surface waters needed by the algae on which the krill feed.

The whales release the iron in their excrement, restarting the cycle from algae to krill to whale.

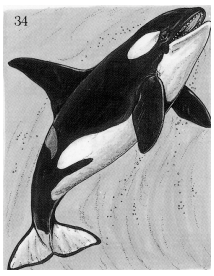
"The numerous whales maintained a very productive ecosystem as environmental gardeners. It collapsed with their decimation," Smetacek, a marine biologist with the Alfred Wegener research institute in the German port of Bremerhaven, said.

Blue whales declined rapidly in numbers up until the 1960s, when the International Whaling Commission (IWC) banned the hunting of the species, the world's largest mammal.

There have been suggestions in recent years to "seed" the sea with iron filings in order to promote algae. The aim is not to feed the krill, but to absorb carbon dioxide from the atmosphere in order to curb global warming

Environmentalists have come out against the idea, warning that the consequences cannot be predicted.

http://www.underwatertimes.com/news.php?article_id=43110927860



"NEW" KILLER WHALE TYPES AT RISK FROM ANTARCTIC WARMING

By John Roach for National Geographic News

Two newly identified types of killer whales that hunt prey off of Antarctic sea ice risk losing food sources to global warming and melting, according to a new study on the whales' movement patterns.

The study reveals that killer whales that feed primarily on fish that congregate under ice shelves are more or less "homebodies," sticking close to the ice, whereas seal-eating killer whales wander wide and seemingly aimlessly.

The differences in movement patterns likely correlate to differences in the whales' foraging strategies and how they interact with their prey, according to the study.

For example, fish-eating whales can stay local because the main anti-predator strategy of fish is to bunch up into schools, often under the ice shelves, according to researchers. On the other hand, the seal-eating whales chase prey with a wider range, as seals wash off of ice floes and travel farther.

Both types of killer whales tracked are heavily dependent on ice cover, according to Robert Pitman, a study co-author and marine biologist with the National Oceanic and Atmospheric Administration in La Jolla, California.

"If there are changes in the amount of ice cover [in the Antarctic] then it means there are going to be changes in the amount of habitat that [the whales] have available to them," Pitman said. "And we're not sure how adaptable they are to living in a different kind of habitat."

The new research, published online this month in the journal Polar Biology, highlights the need to unravel the whale's basic biology, noted Pitman.

The research was supported by a grant from the National Geographic Society (which owns National Geographic News).

NEW KILLER WHALE SPECIES?

Pitman and his colleagues have spent nearly ten years compiling evidence to show that three species of killer whales, not one, ply the icy Antarctic waters.

To date, the researchers have identified three "types" of killer whales, each with distinct looks, habits, and diets, and perhaps even unique genes.

One type swims under the cracked ice and eats fish and another feeds on seals, other mammals, and penguins, from ice floes. The third, a more transient and more studied species, swims in the open ocean and preys primarily on minke whales, which are a small filter-feeding species of marine mammal.

Until the 1970s, Pitman noted, all killer whales, also known as orcas, were considered one species that occurred around the world from the Antarctic to the Arctic and ate anything they could find.

The picture changed when researchers identified three types of killer whales in the North Pacific.

The three types do not interbreed. "In fact, they completely avoid each other," said Pitman, whose studies of Antarctic killer whales are revealing patterns similar to those in the North Pacific.

While scientists are hesitant to call the whale types different species because their differences could be the result of environmental factors, the whales are "clearly on a trajectory to become separate species," Pitman said.

He noted that their distinct food and habitat preferences, size differences, and perhaps even different vocalizations are all barriers to reproduction.

"At some point, they won't be able to interbreed even if they wanted to," Pitman said.

This May, Pitman co-authored a paper in the journal Biology Letters that found genetic differences that are consistent with reproductive isolation among the three types of Antarctic killer whales.

John Ford is a killer whale expert with Fisheries and Oceans Canada's Pacific Biological Station in Nanaimo, British Columbia.

He said the Antarctic studies fit with the global picture that killer whales represent a complex of populations that function as different species even though they are not yet scientifically described as such.

Ford added that the addition of the satellite tagging technology that Pitman used on his most recent study of killer whales will help "focus our conservation efforts for particular populations that might be in trouble."

http://news.nationalgeographic.com/news/2008/08/080804-antarctic-killer-whales-missions.html

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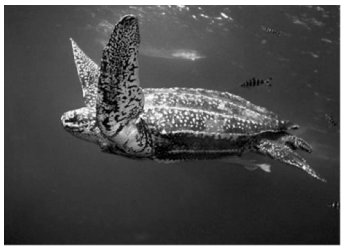
RESEARCH ON BLUE WHALES NEAR SHIPPING LANES IN THE SANTA BARBARA CHANNEL, AUGUST 2008

At least five blue whales were killed in fall 2007 as an apparent result of ship strikes in the southern California area. Three of these animals were discovered in the vicinity of the Santa Barbara Channel. This level of mortality was far higher than had been seen in any previous year and if there were additional deaths of animals that did not wash up, could be significant to this endangered species. Cascadia Research in collaboration with Scripps Institution of Oceanography and with the support of the Channel Islands National Marine Sanctuary and National Marine Fisheries Service initiated research in 2008 on some of the factors possibly responsible for this mortality.

In August 2008 we began conducting small-boat surveys examining blue whale distribution and behavior in and around the shipping lanes in the Santa Barbara Channel. We have been able to gather extensive information on the behavior and movements of whales in the shipping lanes through 7 deployments of two types of suction-cup tags (two dual deployments of both types of tags) all on animals in and near the shipping lanes. The two tags were the Bprobe acoustic tag and Wildlife Computers Mk10 Fastlock GPS tag. Both tags provide an overlapping set of data (depth, temperature, etc.) with the Bprobe providing acoustics and animal body position and orientation and the Mk10 providing for the first time frequent GPS positions of the whale.

Our observations and the data from these tags will help us address several of our key objectives:



1. We have gathered data on the behavior of blue whales in the shipping lanes including documenting their specific feeding and diving pattern in this area.

2.The GPS tag with over 30 hours on one animal provided detailed movement patterns of the whales present in the shipping lanes in the day and throughout the night (something we could not do before). This represents the first successful tag deployments of this Fastlock GPS technology on whales.

3. We had at least three close approaches to whales by ships (less than 1nmi) including one to <200m of our tagged whales. We had the portable AIS received on board providing detailed data on these ships. Other passages likely occurred while we were not present but the combination of archived AIS data and the tag data should allow us examine evidence of any behavioral reaction.

http://www.cascadiaresearch.org/Research on blue whales near shipping lanes in the Santa Barbara Channel.htm

SCIENTISTS FOLLOW TURTLES FOR THEIR OWN GOOD By David Perlman, Chronicle Science Editor

Wanna bet on a 1-ton turtle? Wait till next year.

A hunky leatherback named Saphira II, her tracking tag linked to an orbiting satellite overhead, has just won this year's "Great Turtle Race" after speeding thousands of miles through the swirling ocean currents of the South Pacific.

The event was a postscript to a serious conservation project the four previous years led by biologists at Stanford's Hopkins Marine Station who tracked 46 of the critically endangered leatherbacks from their sandy nests in Costa Rica to their mid-ocean feeding grounds around the Galapagos Islands.

The winning turtle was sponsored by sixth-grade pupils at the Bullis Charter School in Los Altos. They raised $25,000 from the Gordon and Betty Moore foundation to sponsor Saphira II, with the money going to a Hopkins research project called TOPP. Tagging of Pacific Predators tracks the travels of sharks, albatross, turtles and other sea creatures to understand their behavior and life cycles.

For the race, biologists with the National Marine Fisheries Service are studying a different migration path by leather back turtles, a species known as *Dermochelys coriacea,* that forage on jellyfish off Año Nuevo Island and Monterey Bay but nest on beaches as far away as Indonesia.

7,500-mile swim

Scott Benson, a biologist with the National Marine Fisheries Service at Moss Landing who tagged Saphira II where she munched jellyfish just north of Monterey Bay, said the turtle swam more than 7,500 miles to her nesting beach on the Indonesian province of

Papua-Barat. Her average speed was more than 25 miles a day, but by no means the best on record.

The goal of all this tracking research: To ensure the survival of this fast-vanishing species of marine creatures - particularly in the eastern Pacific - whose numbers have declined by more than 90 percent in the past 20 years and now face extinction.

So little is known about the migratory routes of these wandering turtles and how they use their feeding grounds, that recording them as they swim is crucial for developing preservation plans, said Barbara A. Block, a biologist at the Hopkins Marine Station.

The major causes of the crisis are people who harvest turtle eggs by the thousands from leatherback nests, and commercial fisheries whose nets catch turtles as "bycatch," said Block and George L. Shillinger, a graduate student at Hopkins who led the research in Block's lab. Another cause is turtles that mistake drifting plastic bags for jellyfish and suffocate, Shillinger said.

Together with researchers from other institutions, the leatherback scientists are reporting results of their satellite surveillance project today in the Public Library of Science journal PLoS Biology.

CRUCIAL NESTING GROUNDS

For four years, Shillinger has gone to a beach called Playa Grande in Costa Rica's Las Baulas National Park, one of the most important nesting grounds for the leatherbacks, to attach radio transmitter tags on the turtle's backs so they could be tracked by polar-orbiting environmental satellites of the France-based Argos system.

Leatherbacks, Shillinger said, are remarkably fast - especially for creatures that grow to more than 6 feet long and weigh 2,000 pounds or more. "If you jumped in the waterand swam, you'd be hard-pressed to keep up with them," Shillinger said.

The annual race has been a powerful way to raise awareness about the turtles' plight, he said. "Awareness translates into political action, the kind of action that puts pressure on governments and maritime industries, and the public, too, to stop the killing because at this point, even on that nesting beach in Costa Rica, the turtles are losing their beach," Shillinger said.

Leatherback turtles evolved more than 100 million years ago, and where thousands of females once nested at Playa Grande each year, now barely 100 remain, Shillinger said.

In the report in PLoS Biology, the scientists reported that 46 female turtles were tagged on the Costa Rica beach over the past four years while they laid their eggs in nests beneath the sand and just before they lumbered off to return to the sea. The satellite tracked them for an average of 263 days over an average of more than 5,000 miles. The fastest turtle on record swam at 34 miles a day, and hardiest of them swam for 9,160 miles, the scientists reported.

Just what clues the turtles use to navigate southward remains a mystery, but the paths of those that Shillinger and his team followed from Costa Rica were remarkably similar. They all wound up within the vast circling ocean currents known as the South Pacific Gyre that circulate off the coast of South America, and the jellyfish in their diet were most abundant in waters around the Galapagos Islands.

"The data these animals are collecting will enable us to predict the movement and behavior of leatherbacks and protect them wherever they are," Shillinger said. "Where the turtles go, so do many other marine species. When we protect turtles, we're also protecting the species that accompany them.

http://www.sfgate.com/cgibin/article.cgi?f=/c/a/2008/07/15/MNLQ11NRNU.DTL

SIGHTINGS compiled by Monterey Bay Whale Watch. For updates see www.gowhales.com/sighting.htm

Date	#	Type of Animals
8/31 p.m.	3	Humpback Whales
8/31 a.m.	5	Humpback Whales
	30	Pacific White-sided Dolphins
8/30 p.m.	5	Humpback Whales
8/30 a.m.	6	Humpback Whales
	2	Killer Whales *
	200	Pacific White-sided Dolphins
	70	Risso's Dolphins
	100	Northern Right Whale Dolphins
8/29	3	Humpback Whales
	9	Killer Whales*!
	3	Long-beaked Common Dolphins
8/28 p.m.	1	Basking Shark
8/28 a.m.	6	Humpback Whales
8/27 p.m.	11	Humpback Whales
	400	Risso's Dolphins
8/27 a.m.	17	Humpback Whales
	10	Risso's Dolphins
	8	Dall's Porpoise
	1	Northern Fur Seal
8/26 p.m.	2	Humpback Whales
8/26 a.m.	14	Humpback Whales
	500	Pacific White-sided Dolphins
	700	Risso's Dolphins
	600	Northern Right Whale Dolphins
8/25	7	Humpback Whales
8/24 p.m.	5	Humpback Whales
	12	Dall's Porpoise
8/24 a.m.	4	Humpback Whales
	15	Pacific White-sided Dolphins
	500	Risso's Dolphins
	10	Dall's Porpoise
8/23 p.m.	4	Humpback Whales
	5	Killer Whales*
8/23 a.m.	7	Humpback Whales
	5	Killer Whales*
	25	Risso's Dolphins
8/22 p.m.	5	Humpback Whales
8/22 a.m.	25	Humpback Whales
	75	Pacific White-sided Dolphins
	30	Risso's Dolphins
	20	Northern Right Whale Dolphins
8/21 p.m.	20	Humpback Whales
8/21 a.m.	50	Humpback Whales
	12	Pacific White-sided Dolphins
	100	Risso's Dolphins
8/20 p.m.	2	Humpback Whales
8/20 a.m.	17	Humpback Whales
	650	Pacific White-sided Dolphins
	400	Northern Right Whale Dolphins
8/19 p.m.	9	Humpback Whales
8/19 a.m.	22	Humpback Whales
	2	Long-beaked Common Dolphins
	8	Bottlenose Dolphins
	400	Risso's Dolphins
	20	Northern Right Whale Dolphins
8/18 p.m.	7	Humpback Whales
8/18 a.m.	14	Humpback Whales
	3	Long-beaked Common Dolphins
	12	Risso's Dolphins
	2	Harbor Porpoise
8/17 p.m.	3	Humpback Whales
	2	Long-beaked Common Dolphins
8/17 a.m.	5	Humpback Whales
	1	Minke Whale
8/16 p.m.	3	"Friendly" Humpback Whales
	4	Humpback Whales
8/16 a.m.	3	"Friendly" Humpback Whales
	10	Humpback Whales
	20	Pacific White-sided Dolphins
	80	Risso's Dolphins
	15	Northern Right Whale Dolphins

*transient types
! predation on Sea Lion

NOTABLE MEDIA

Tuna- A Love Story. Richard Ellis, 2008.
If there is any hope for saving the Atlantic blue-fin tuna it lies in Richard Ellis's well-written and extensively researched new book. The seven other species of tuna are also discussed

Fifty Years of Flukes and Flippers: A Little History and Personal Adventure with Whales, Dolphins, and Sea Lions 1958-2007 by Dr. William E. Evans.

Eastern temperate offshore North Pacific killer whales (Orcinus orca): Occurence, Movements, and insights into feeding ecology p719-729
Marine Mammal Science July 2008 Volume 24
Nancy Black, Richard Ternullo, Alisa Shulman Janiger, Marilyn Dahlheim

DVD: Farallon Islands: Past, Present and Future
This DVD was created to raise public awareness and foster a conservation ethic about the Farallon Islands National Wildlife Refuge

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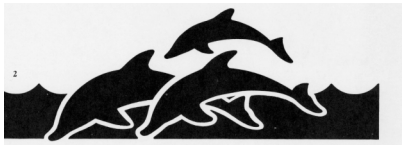
Pacific Grove, CA 93950



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American Cetacean Society Membership Application Chapter#24

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Name _____

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City, State, Zip_____

Membership level _____

Membership levels and Annual dues:
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Student/Teacher/Senior $25
Subscription only * $15/11 issues (*not entitled to membership benefits)

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Soundings

American Cetacean Society- Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950
www.starrsites.com/acsmb

OCTOBER 2008

October Meeting

Date: **Thursday, October 30, 2008**

Monthly meeting at Hopkins Marine Station, Lecture Hall. Boat Works Building (Across from the American Tin Cannery Outlet Stores).

Meeting is open to the Public

Time: **7:30 PM. PLEASE JOIN US AT 7:00 FOR REFRESHMENTS**

Presentation**: Video "Double Feature"**

Title: ***The Mystery of Laguna Beach* and *California Sea Lions: An Unforgttable Enocunter***

THE MYSTERY OF LAGUNA BAJA features amazing footage of the wildlife that visits or resides in this part of the Baja peninsula. Not only is there wonderful footage of gray whales during their breeding and birthing period, this video also presents intimate looks at the migratory avian community, local invertebrates and fun loving sea lions. Additionally, it provides an interesting look into the ecology of the eel grass habitat.

Among the breeding birds featured are the Osprey, Peregrine Falcon and Brown Pelican. Footage includes opportunities to see the nests, nesting behavior, foraging of parents and feeding of the young chicks. This video features a spectacular interaction between an Osprey and two Peregrines protecting their nest. The run time is 48 minutes.

CALIFORNIA SEA LIONS is a well directed DVD by Alan De Herrera. It includes segments from research done locally at Long Marine Labs, Moss Landing Marine Labs along with research and care done in southern California. It features the story of a successful rescue and release of two Sea Lions by the Pacific Marine Mammal Center. The run time is 37 minutes.

As many of you know, our scheduled speaker this month was our own President, Jerry Loomis. Jerry's scheduled program was entitled *THE ULTRA FRIENDLY WHALES OF SAN IGNACIO LAGOON.* Still recovering from cervical spine surgery Jerry was compelled to postpone his presentation. His recovery, we are glad to report, is going well.

Special thanks goes out to Carol Maehr and Tony Lorenz for lending these programs to our Chapter.

Please join us for an informative and entertaining evening.

INSIDE THIS ISSUE

Photo Credits

Sea Lion at the Breakwater by Esta Lee Albright

Tuna (pg 2) *www.artsjournal.com/outthere/bluefin-tuna_greenpeace.jpg*

Dolphin (pg 4): Esta Lee Albright

Bowhead and Beluga Whales (pg 5): *http://www.saskschools.ca/~gregory/arctic/sea/whales.jpg*

CALENDAR

October 2008

October 22 MBARI Lecture Hall. Richard Ellis, Tuna: A Love Story. Richard Ellis is a world-renowned marine artist and writer who has written over 10 books about marine science.

October 30-November 2: California Science Education Conference.
San Jose Convention Center

Oct 31st: Leakey Prize Laureate Lecture. An Evening with Dr. Jane Goodall and Dr. Toshisada Nishida. Herbst Theatre, Downtown San Francisco, 415-392 4400.

November 2008

Nov. 1st 9:00am-300pm: Public Forum for Primatology and Scientific Roundtable. 20 of the greatest scientific minds will gather at the CA Academy of Sciences to discuss" What does it mean to be a primate?" 415-392-4400 cost is $200.

Nov. 7-9: 12th Annual Sitka Whale Festival Speakers will include Dr. Bruce Mate, Craig Matkin, Dr Scott Shaffer, Dr Dan Crocker Field trips to be included. For registration and more info call 907 747-7964.

Nov. 8th-9th: 2008 WEZAMC 2nd Annual Marine Mammal Conference School
of Veterinary Medicine University of Wisconsin ,Madison

Nov 21-23: Symposium on Monitoring Strategies for Marine Mammal Populations, La Rochelle France. Hosted by the University of Rochelle.

AMERICAN CETACEAN SOCIETY'S
BIENNIAL CONFERENCE
NOVEMBER 13-16 2008

World-renowned cetacean experts will gather in Monterey Bay to discuss science, conservation, and policy. Field trips will be held on Nov. 14 and will include whale watching on Monterey Bay as well as kayaking in Elkhorn Slough and coastal wilderness hikes. Conference Itinerary Includes:

Thursday Nov. 13th: Photography Workshop.
Cost $60

Friday Nov. 14th: All day field trip aboard the Sea Wolf. Field trip will depart at 8:00 am and return at approximately 4:00 pm. Cost $65.

In addition to searching for Blue and Humpback Whales, 5 species of dolphin, 2 species of porpoise, and 2 species of beaked whales are possible. Conference field trips in 1992 and 2000 both produced incredible sightings of Killer Whales. Observers on the 1992 trip observed Offshore Killer Whales and observers on the 2000 trip witnessed transient Killer Whales preying on California Sea Lions. Our trip leaders for this trip will be captain Richard Ternullo and Nancy Black. California's pre-eminent experts on killer whales.

Sat and Sun Nov 15th and 16th: All day conference to be held at Embassy Suites. Cetacean experts from around the world will be present to give presentations on cetacean biology, ecology and conservation.

Saturday Nov. 15 7-10pm Banquet: *Whales in a Changing World* with Ken Balcomb. At the Monterey Beach Resort. Cost $75

Nov 17th: Gray Whales and Climate Change Sentinels of the North Pacific/Arctic Ecosystem. Hosted by Steven Swartz and Sue Moore.
Cost FREE

For more information go to the ACS National website at www.acsonline.org for updates or call ACS National at 310-548-6279

WHALE DISENTANGLEMENT

by Mary J Whitney of Fluke Foundation

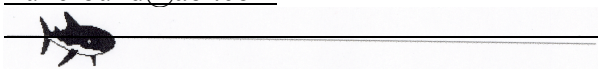
It all started about two years ago with a question. "Why doesn't CA have a coordinated program for disentangling whales like Hawaii?" Today it does. The Central and Northern CA regions have a fully functional network of volunteers, NGO's, and government agencies available to assess a whale in distress and disentangle as needed. This new disentanglement network calls itself WET (Whale Entanglement Teams). A toll-free hotline number will be available for reporting entangled whales. The annual expense of this number will be funded by NOAA fisheries.

When the topic of entangled whales was initially discussed at the MBNMS (Monterey Bay National Marine Sanctuary) Conservation Working Group meeting, it received attention that soon became a strong dedication to a solution. In November 2007 the MBNMS Conservation Working Group hosted a major meeting in Moss Landing to determine the needs for disentanglement in CA and specifically in the MBNMS. Key marine professionals attended and it was a giant positive step toward forming a disentanglement plan.

In May 2008 there was an unprecedented two day training and strategy meeting at Moss Landing with all key stranding and disentanglement decision makers in attendance. The green light was given with full authority to the development of a Central and Northern CA whale disentanglement network. The entire group is highly motivated to shape the best possible program. Considering the variety of cetaceans and fisheries along the CA coast, the likelihood of entanglement is fairly high. Unfortunately a whale will usually drag gear/debris around until it starves or suffers a systemic infection. The lucky whale will "throw" the gear on its own leaving telltale scars on its body.

By August 2008, Northern and Central CA were clearly on the same page. A training and strategy session was held at Moss Landing. The Federal ICA (Incident Command System) was adopted for the whale rescue operations. This put in place a standardized protocol for everyone to follow. The government agencies involved already use ICS. That afternoon, all authorized personnel and available equipment were on the water simulating an entangled whale rescue. Procedures were reviewed and gaps in the existing equipment cache were noted. Hopefully funding will come from a possible Prescott grant to purchase more essential gear. Additional contributions will still be necessary to round out the equipment cache for Monterey. Whale rescue is an extremely expensive (read priceless) endeavor.

Disentanglement is still a somewhat controversial issue. There is always a serious concern that misguided attempts to free entangled whales will bring misinformed media attention to the issue. This is an extremely dangerous task that requires special training, equipment, support, and authorization. There is still no actual law that covers most entangled whales. The MMPA covers a live whale on a beach, a whale up a river, and a whale anchored to the sea floor by a crab pot, but a free swimming whale pulling a ton of nets for 1,000 miles is not necessarily covered by existing law. Language that would add the word "entangled" (stranded or entangled) to Section 408 has been proposed in both the House and the Senate but it has not yet been enacted into law. If you'd like to voice an opinion on this issue, please go to: http://wwwgovtrack.us/congress/billtext.xpd?bill=h110-1006 and then write to your congressperson. Your comments about this article are welcome at flukefound@aol.com



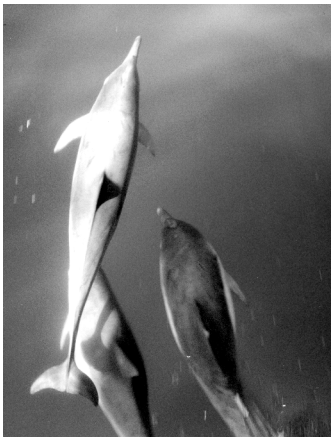
NEANDERTHALS ATE DOLPHINS, SEALS, CAVE REMAINS SUGGEST

by John Roach for National Geographic News

Neanderthals living in a pair of caves on the Mediterranean Sea regularly feasted on mussels, fish, and other types of marine life, according to a new study. The finding suggests that Neanderthals actively foraged for seafood just like early modern humans, according to Clive Finlayson, an anthropologist at the Gibraltar Museum.

Neanderthals and modern humans are distinct species that split from a common ancestor several hundred thousand years ago. Why modern humans thrived and Neanderthals ultimately failed

has long been a topic of scientific intrigue, and previous research had suggested that the ability to exploit marine resources was one of the defining characteristics for the success of modern humans. But the new research may eliminate sophisticated foraging skills from the list of potential advantages unique to humans.



"I don't think that the success of one or the other had to do with subsistence, with the way they hunted or fed," Finlayson said. "There may be other factors coming into this, or it may just have been a question of luck."

SEAFOOD FEASTS

The new theory is based on excavations of two caves on the western edge of Gibraltar, a British territory at the southern tip of Spain. Previous studies showed Neanderthals periodically occupied the caves as recently as 28,000 years ago.

Inside the caves Finlayson and his colleagues found mussel shells and the bones of seals, dolphins, and fish mixed in with the remains of deer and other land mammals.

Many of the bones show signs of being cooked over a fire, and some have marks left by stone tools used to cleave off chunks of flesh.

Seafood remains are found throughout various layers in the caves, indicating that Neanderthals regularly exploited marine resources for tens of thousands of years.

"It seems to suggest that this wasn't a one-off, but that these guys were doing it on a regular basis," Finlayson said.

He and colleagues describe the findings online today in the journal Proceedings of the National Academy of Sciences.

SYSTEMATIC FORAGING?

Curtis Marean is an anthropologist at Arizona State University in Tempe who has found evidence that prehistoric humans were feasting on seafood in South Africa 165,000 years ago.

Marean said the new study clearly shows that Neanderthals occasionally ate seafood. But he is not convinced their exploitation of seafood was on par with that of early modern humans in Africa. "I don't think there's enough evidence here to indicate that they are systematically being a coastal forager in the sense that we think of coastal foragers," he said.

In South Africa, Marean noted, scientists have found waste piles called shell middens that date back nearly a hundred thousand years. These piles contain several thousand pieces of shellfish discarded by humans.

By contrast, the Gibraltar caves yielded just 149 pieces of shellfish. Those pieces could be from a handful of mussels, Marean noted.

The differences in abundance could stem from different availabilities of seafood at the two sites, or in the abilities of the two species to actively forage for ocean food, he added. To resolve the issue, Marean recommends a systematic comparison of Neanderthal and human seafood collection at sites with similar availability.

"Were Neanderthals [exploiting seafood] like we expect they would if they were modern? And if they weren't, then the question is: Why?" he said.

"We could be getting into something interesting there, for sure."

http://news.nationalgeographic.com/news/2008/09/080922-neanderthals-caves.html

CONSERVATION GROUPS TO OFFER SUSTAINABLE SUSHI GUIDE: 'YOU'LL AVOID RED-LISTED SUSHI'

Monterey, California -- Sushi lovers nationwide will soon have a way to make seafood choices that please the palate and safeguard the world's ocean wildlife.

On October 22, three leading ocean conservation organizations - Blue Ocean Institute, Environmental Defense Fund and the Monterey Bay Aquarium - will make available to the public color-coded consumer guides ranking popular sushi selections based on whether they are prepared using seafood that's caught or farmed in ways that harm the ocean or pose a health risk to people.

While the consumer guides - in print, online and mobile device versions - differ in appearance, they are based on similar data, and offer one consistent message: Sushi choices by individual consumers have an impact on the future of the ocean.

"For the first time, sushi lovers have tools that enable them to join the growing movement of those making ocean-friendly choices that protect life in the seas now and for generations to come," said Julie Pareles, executive director of Blue Ocean Institute (www.blueocean.org).

"These new guides not only enable sushi lovers to choose fish that are caught or farmed responsibly, they also highlight selections that are healthy for them and their families," said Tim Fitzgerald, marine scientist for Environmental Defense Fund (www.edf.org). "The reality is quite simple," said Sheila Bowman, Seafood Watch outreach manager at the Monterey Bay Aquarium (www.montereybayaquarium.org). "If you care about the future of the oceans, you'll avoid red-listed sushi."

For sushi aficionados, that means both pleasant surprises - and some disappointments. Popular items like bluefin tuna (hon maguro/kuro maguro) and freshwater eel (unagi) are firmly on the "red" list, as is farmed salmon (sake). These species are either overfished, farmed with aquaculture methods that pollute the ocean, or caught using methods that destroy ocean habitats or kill large amounts of other sea life.

Items like wild-caught Alaska salmon (sake), farmed scallops (hotate) and Pacific halibut (hirame) are more sustainable choices, in part because they come from abundant, well-managed fisheries or - in the case of scallops - are raised using sustainable aquaculture methods. All three guides offer a substantially consistent message about the best selections, as well as the fish to avoid when choosing sushi.

"While we consider similar factors in assessing each fishery, we each tabulate the environmental information in slightly different ways," said Kate McLaughlin, Blue Ocean Institute's Seafood Program Director. "That results in subtle variations for a handful of rankings."

"The differences are minor," Bowman said. "Regardless of which sushi guide people rely on, everyone from chefs to consumers now has a very clear picture of what their sushi choices mean for ocean wildlife."

All three guides incorporate human health recommendations from Environmental Defense Fund, and fish that contain levels of mercury or PCBs that may pose a health risk to adults or children are flagged. Fisheries researchers from the Blue Ocean Institute and Monterey Bay Aquarium evaluated the seafood species included on the guides. The Monterey Bay Aquarium seafood rankings are the basis for items selected by Environmental Defense Fund for inclusion in its sushi guide.

http://www.underwatertimes.com/news.php?article_id=61030125948

THE FIVE MOST ENDANGERED WHALES

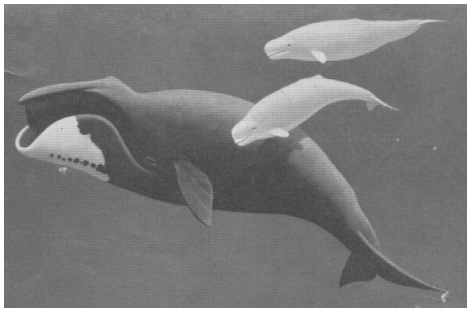
North Atlantic Right whale: Given such a small gene pool, scientists fear for its survival. One possible solution may be to reinvigorate the northern whale's genes with those of its more successful southern counterpart off South Africa. Recent reports of pregnant North Atlantic right whales killed by ship strikes off the north eastern seaboard of the US do not augur well for the species. Fewer than 350 animals

Western Pacific Grey whale: The most endangered of all great whales, and a potential victim of oil and gas exploitation off Sakhalin Island on the far east of Russia. Likely oil spills threaten the habitat of a population of as few as 120 individuals. The death of just three females could mean the extinction of the species. Fewer than 120 animals

Bowhead: Once known as the common or Greenland whale, this cetacean was targeted by British whalers in the 18th and 19th centuries; William Scoresby of Whitby took 533 in his whaling career alone. The bowhead – a close relative of the right whale – is rarely seen as it confines itself to Arctic waters, using its huge head to break ice in order to breathe. It is threatened by

the receding polar ice, and by the probable expansion of the oil industry. Fewer than 120 animals

Narwhal: Another Arctic whale, its 10ft-long tusk – in fact, an overgrown tooth – is the source of the legendary unicorn's horn. (Medieval hunters and apothecaries conspired to create a market for its supposed properties as an antidote for poison and melancholia.) Named after the Norwegian for 'corpse whale', it is still hunted by aboriginal peoples, who can sell its ivory tusks for up to $7,000 a piece. It too is threatened by the shrinking north polar ice cap. Fewer than 120 animals



Cook Inlet Beluga whales: Named after the Russian for white, belugas are known as canaries of the sea for their vocal chirrups and whistles. Common in the Arctic and sub-Arctic waters, they are under threat from pollutants such as mercury and PCBs: belugas that die in Canada's St Lawrence river way are so contaminated their bodies are classified as toxic waste. Oil pollution in the Cook Inlet, Alaska, has caused the isolated population there to collapse to near extinction. Fewer than 400 animals

http://www.independent.co.uk/environment/nature/the-five-most-endangered-whales-935150.htm

PACIFIC SALMON COULD VANISH LIKE ATLANTIC COD By Jeff Nagel - BC Local News

The alarming decimation of the West Coast's iconic Pacific salmon in the past 20 years has largely been a hidden tragedy.

It lurks beneath the waves, unlike more visible environmental catastrophes like shrinking polar ice or B.C.'s reddening stands of beetle-devoured pine trees.

This summer, just 1.7 million Fraser River sockeye returned – a tiny remnant of a resource that once generated 20 million fish a year. The commercial fishing industry is now worth just $60 million, down 70%.

West Vancouver author Alex Rose, whose new book Who Killed the Grand Banks? examines the failed Newfoundland fishery, warns Pacific salmon could meet the same fate as the once-legendary cod.

"We're at crisis," Rose said in an interview. "I'm not a doomsayer. I'm not an apocalyptic thinker. But we have to rethink what we're doing."

Newfoundlanders pointed fingers of blame in all directions when the cod were in freefall. And Rose, whose book also explores the plight of B.C. salmon, said it's no different here on the West Coast. "Every year, there's another rationale or excuse for what's happened," he said.

Ocean survival, rising water temperatures and poaching are favorite scapegoats when salmon go missing. But Rose said the primary cause is more obvious.

"We're all overfishing – all of the user groups," he said. "We've got to stop."

He urges an immediate fishing moratorium by all users on Strait of Georgia wild coho and chinook – the two species he says are most threatened.

After overfishing, he lists habitat destruction as the next likeliest cause of the collapse.

While logging is one major factor, Rose also lists damage to urban streams from development in places like Surrey, industrial pollution and volatile new cycles of flood and drought triggered by climate change.

A massive gravel mining operation near Chilliwack that destroyed 2.2 million pink salmon hatchlings in 2006 was the latest high-profile atrocity, he said. Upriver, salmon face increased competition for water with ranchers, farmers and local cities.

Rose's most stinging critique is reserved for federal fishery managers, who he accuses of presiding over botched science, muddled management and questionable priorities. "They have a confused mandate, they are intellectually bankrupt and we can't count on them any more," Rose said. Rather than decisively lead the way to a

sustainable solution, he said, DFO managers are left to ineffectually referee the open warfare between commercial fishermen, sport anglers and aboriginal bands. "One can only conclude that they have failed," he said. "They are prepared to sacrifice, with the political decisions they're making now, the very sustainability of these stocks."

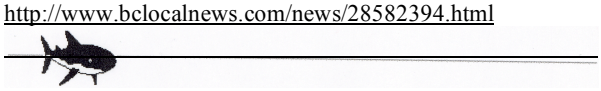
Federal fisheries deputy minister David Bevan told Rose west coast fisheries are shut down when necessary to preserve salmon, and that there's much greater awareness now of the importance of ocean conditions on salmon survival rates.Rose is not encouraged.

Despite advance forecasts this would be a low return year for sockeye, fisheries managers gave the green light to commercial and sport fishing for limited periods, and a constricted aboriginal food fishery. Rose said the picture is even worse for coho and chinook.

"We're witnessing terrible destruction of these stocks," he said. "It's a tragedy."

Canada already deserves shame for its central role in demolishing a global treasure – the Grand Banks cod.

Rose said it is unthinkable for the country to duplicate that ecological disaster on this coast.
http://www.bclocalnews.com/news/28582394.html



SIGHTINGS compiled by Monterey Bay Whale Watch. For updates see
www.gowhales.com/sighting.htm

Date	#	Type of Animals
10/6 a.m.	7	Humpback Whales
	20	Dall's Porpoise
10/5 p.m.	8	Humpback Whales
	5	Dall's Porpoise
	1	Blue Shark
10/5 a.m.	5	Humpback Whales
	9	Killer Whales
	5	Bottlenose Dolphins
10/4 p.m.	20	Humpback Whales
10/4 a.m.	10	Humpback Whales
	5	Killer Whales
	6	Pacific White-sided Dolphins
	12	Dall's Porpoise
10/3 p.m.	7	Humpback Whales
	2	Bottlenose Dolphins
10/3 a.m.	12	Humpback Whales
	1	Pacific White-sided Dolphin
	2	Bottlenose Dolphins
10/2 p.m.	11	Humpback Whales
	5	Pacific White-sided Dolphins
	10	Dall's Porpoise
10/2 a.m.	12	Humpback Whales
	1	Minke Whale
	7	Risso's Dolphins
	20	Dall's Porpoise
10/1 p.m.	10	"Friendly" Humpback Whales
10/1 a.m.	25	Humpback Whales
	50	Pacific White-sided Dolphins
	10	Bottlenose Dolphins
9/30 a.m.	11	"Friendly" Humpback Whales
	6	Killer Whales
	25	Risso's Dolphins
	10	Dall's Porpoise
9/29 p.m.	10	"Friendly" Humpback Whales
	5	Bottlenose Dolphins
9/29 a.m .	4	Humpback Whales
	20	Dall's Porpoise
	1	Northern Fur Seal
9/28 p.m.	13	Humpback Whales
	50	Risso's Dolphins
	50	Northern Right Whale Dolphins
9/27 p.m.	4	Humpback Whales
	150	Pacific White-sided Dolphins
	150	Risso's Dolphins
	100	Northern Right Whale Dolphins
	10	Harbor Porpoise
9/27 a.m.	4	Humpback Whales
	50	Risso's Dolphins
	50	Northern Right Whale Dolphins
	50	Dall's Porpoise
9/26 p.m.	62	Risso's Dolphins
9/26 a.m.	10	Humpback Whales

*transient types
!predation on Minke Whale!

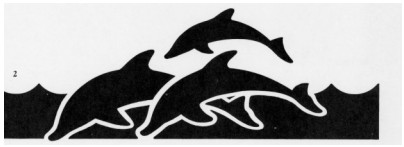
NOTABLE BOOKS

Marine Mammal Field Guides by Uko Gorter. New Field Guides include Marine Mammals of Florida, Panama, and Hawaii. All guides are (7" x11") and are available through Rainforest Publications. Uko will be at the ACS Conference with a wide assortment of marine mammal field guides.

Who Killed the Grand Banks: The Untold Story Behind the Decimation of one of the Worlds Greatest Natural Resources by Alex Rose.
2008 Wiley Publishing.

Humpback Whales: Behavior on the Hawaiian Breeding Grounds by Jim Darling. Photography by Flip Nicklin, Illustations by Sue Barnes.
Due in Oct/Nov 2008 Granville Publishing

American Cetacean Society
Monterey Bay Chapter
P.O. Box H E
Pacific Grove, CA 93950



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American Cetacean Society Membership Application Chapter#24

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Renewal ___

Name _____

Address_____Email_____

City, State, Zip_____

Membership level _____

Membership levels and Annual dues:
Lifetime $750Patron $500Contributing$250
Supporting $75Foreign $45Family $45Active$35
Student/Teacher/Senior $25
Subscription only * $15/11 issues (*not entitled to membership benefits)

Check___Mastercard___Visa___Expiration date_____

Signature_____

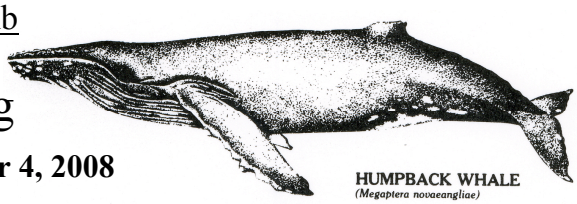
Make checks payable to: ACS/Monterey Bay Chapter
Return to: Membership Secretary, ACS Monterey Bay Chapter
P.O. Box H E Pacific Grove, CA 93950

Soundings

American Cetacean Society- Monterey Bay Chapter
PO Box H E, Pacific Grove, CA 93950
www.starrsites.com/acsmb

NOVEMBER-DECEMBER 2008

December Meeting



Date: **Thursday, December 4, 2008**

Monthly meeting at Hopkins Marine Station, Lecture Hall. Boat Works Building (Across from the American Tin Cannery Outlet Stores).

Meeting is open to the public

Time: **7:30 PM. PLEASE JOIN US AT 7:00 FOR REFRESHMENTS**

Speaker: Brian W. Kot, Doctoral Candidate, Department of Ecology and Evolutionary Biology, UCLA

Title: Biomechanical Process Uniformities in Lunge-Feeding Rorqual Whales

Rorqual whales are the largest animals on earth yet their filter-feeding processes and mechanisms are poorly understood due to the difficulties of locating and studying feeding whales at sea. Most of the previous work on rorqual feeding involved anatomical studies of dead whales or investigations of living whales which were not seen feeding. As a result, functional aspects of the feeding process remained highly speculative.

Brian's research involves capturing and analyzing digital video footage of rorquals while thery are visibly feeding on krill or schooling fishes at the sea surface. During his 1300 hours of research at sea and after observing over 3500 lunge-feeding events, Brian has taken thousands of photographs and has compiled hundreds of hours of video of blue, finback, humpback and minke whales in the Gulf of St. Lawrence in eastern Canada.

In addition to sharing his data with our Chapter, Brian will show video clips of each species' feeding and swimming behavior. These clips were recorded from various field platforms including inflatable boats, a helicopter and a video camera system tethered to helium balloons. His presentation will detail some of the longest continual surface-feeding bouts ever recorded involving individual blue, finback and minke whales. Please join us for our wrap up presentation for 2008, one that promises to have spectacular visuals and which will provide interesting information and insight about several cetaceans from our "other coast".

INSIDE THIS ISSUE

Photo Credits

Humpback Whale (this Page) by Robin Makowski

Vaquitas (pg 5) http://www.conservacion.org.mx/images/VAQUITA%20ILUSTRACIONES.JPG

Whale Evolution Illustration (Pg 6) by Mary Parrish/Smithsonian Institution

Stellar Sea Eagle (Pg 3) by Tim Laman. http://animals.nationalgeographic.com/staticfiles/NGS/Shared/StaticFiles/animals/images/800/stellers-eagle-spreading-wings.jpg

CALENDAR

November 2008

Nov. 7-9: 12th Annual Sitka Whale Festival Speakers will include Dr. Bruce Mate, Craig Matkin, Dr Scott Shaffer, Dr Dan Crocker Field trips to be included. For registration and more info call 907 747-7964.

Nov. 8th-9th: 2008 WEZAMC 2nd Annual Marine Mammal Conference School of Veterinary Medicine University of Wisconsin ,Madison

Nov 21-23: Symposium on Monitoring Strategies for Marine Mammal Populations, La Rochelle France. Hosted by the University of Rochelle.

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For more information go to the ACS National website at www.acsonline.org for updates or call ACS National at 310-548-6279

January – February 2009

Marine Science Seminar Weekend at Camp Ocean Pines in Cambria, CA

January 23-25 Session 1 : "Humpback Whales" by Dr. Jim Darling. Come to hear the latest updates on humpback and gray whales. Get a signed copy of his latest book. Field trips include whale-watching with Jim from Morro Bay.

Jan 29th-Feb 1st Session 2: "All about Abalone" by Dr. John Pearse and Dr. George Trevelyan. Lectures will be given by Dr. Pearse from UCSC about abalone life history. A field trip to local tide pools and the Cayucos Abalone farm will be included. For more info contact Chris Cameron at 805-927-0254

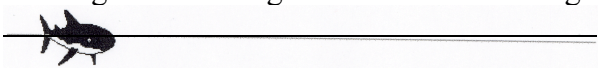
Jan. 24th Saturday, 7 am-9:30am ACS Monterey Bay Chapter Gray Whale Fundraiser. Cost $40.00 Trip will take place on the 100ft Princess Monterey out of Monterey Whale Watching. Located on Fisherman's Wharf in Monterey, CA. Monterey Bay is the best place along the West Coast to observe south-bound Gray Whales. Gray Whales migrate across Monterey Bay (Davenport) and resume hugging the coast somewhere between Point Pinos and Point Lobos making Gray Whale observation along the Monterey coast incredibly accessible to whale-watchers. Monterey is home to a plethora of Gray Whale experts and we hope to be traveling with a few. Other possible sightings include Killer Whales and Dolphins. All proceeds from this trip are donated to the Monterey Bay Chapter of ACS. For more information on the natural history of Gray Whales we recommend Gray Whales by Alan Baldridge and David G. Gordon. For more trip information and reservations please call Tony Lorenz at 831-648-8968 or Jerry Loomis at 831-419-1061.

Dec 2008-April 2009. Jean-Michel Cousteu presents Sharks 3D. Encounters With Lions And Tigers Of The Ocean. IMAX Theatre Monterey

Feb. 17th -19th. 29th Symposium on Sea Turtle Biology and Conservation. Brisbane,Australia For more info go to www.turtlesbrisbane.org

Feb 13th-15th. Fourth Annual Whale Quest. Kapalua Ritz-Carlton. Kapalua, Maui, Hawaii Presenters will include Jim Darling, Bruce Mate, Mark Ferrari, David Matilla, John Stern and Flip Nicklin to name just a few. For more info go to info@whaletrust.org.

Feb 18th-26th. 36th Annual Meeting Of The Pacific Seabird Group Hakodate, Hokkaido, Japan. Field Trips include visiting the winter roosting habitat of the Stellar Sea Eagle and White Tailed Sea Eagle. For info go to PacficSeabirds.org



"SOUNDINGS" NEWSLETTER NOW ONLINE BACK TO 1980

With the permission of ACS Monterey, the Miller Library at Hopkins Marine Station scanned its print copies of the "Soundings" newsletter to create a digital archive of searchable PDF files. These files have been deposited into the Aquatic Commons digital archive and are available and fully searchable at the URL http://aquacomm.fcla.edu/. While the library's holdings were relatively complete, there were some missing issues. Members such as Alan & Sheila Baldridge, Esta Lee Albright, and Gina Thomas helped locate many of the missing issues, but there are still a few that were not found. A list of the remaining gaps is below. If anyone has one or more of these issues, the library would appreciate borrowing them in order to make digital copies to complete the archive. Please contact Joe Wible at wible@stanford.edu or 831-655-6228.

Seeking to borrow following issues of "Soundings":

1981 - April
1985 – July
1987 - Nov
1988 - July, Aug, Oct
1989 - Jun, July, Aug, Oct
2002 - July

A MASS MAMMAL EXTINCTION

At least one in four of the Earth's mammals is at risk of extinction, according to the biggest study ever undertaken on the future of mammals. This horrifying discovery should spur governments to take action to reverse the trend.

While for years we have known that the long-term health of land and marine mammals was endangered, to learn that hundreds of species could disappear forever as a result of mankind's actions is shocking.

For land mammals, the loss of habitat and the threat from hunters pose the greatest danger, said the study, based on findings by 1,700 experts in 130 countries. Marine mammals are hard-pressed by chemical pollution, global warming and direct and indirect threats from fishing. Many large marine mammals die caught up in fishing nets that are set to catch other fish.

The study, led by the International Union for Conservation of Nature, makes clear that large-scale conservation measures are urgently needed to keep a number of large mammals, such as polar bears and apes, from perilous declines.

Unfortunately, little seems to be known about how much land certain species require to flourish.

Research in the U.S. has found that few existing natural reserves appear large enough to avoid the loss of at least some mammal species. One study estimated that a reserve of 5,000 square kilometres (or 500,000 hectares) would be the minimum required.

Last year, Canada announced it would conserve an area of 10,000 square kilometres in the Northwest Territories. It was to be the largest land conservation initiative in the country's history. There is more to do. In Canada and around the world, species conservation must become a priority. The

problems of over-hunting and over-fishing have to be tackled as the economic and social issues they really are. A better supply of food for starving villagers in Africa would do more to protect endangered mammals than any number of pious speeches. There is no single answer to this pressing problem. Governments everywhere must look for the best local answers.
http://www.canada.com/victoriatimescolonist/news/comment/story.html?id=68615371-1ecc-4cff-b820-83e247392638

STUDY: ONE-THIRD OF WORLD'S FISH CATCHES ARE BEING WASTED AS ANIMAL FEED: 'IT DEFIES REASON' Stony Brook, New York -- An alarming new study to be published in November in the Annual Review of Environment and Resources finds that one-third of the world's marine fish catches are ground up and fed to farm-raised fish, pigs, and poultry, squandering a precious food resource for humans and disregarding the serious overfishing crisis in our oceans.

Lead author Dr. Jacqueline Alder, senior author Dr. Daniel Pauly, and colleagues urge that other foods be used to feed farmed animals so that these "forage fish" can be brought to market for larger-scale human consumption. "Forage fish" include anchovies, sardines, menhaden, and other small- to medium-sized fish species which are the primary food for ocean-dwelling marine mammals, seabirds (especially puffins and gulls) and several large fishes.

Currently, catches of forage fish are predominantly used in animal feed, but these species are highly nutritious and well-suited for direct human consumption.

"We need to stop using so many small ocean fish to feed farmed fish and other animals," Alder said. "These small, tasty fish could instead feed people. Society should demand that we stop wasting these fish on farmed fish, pigs, and poultry." Although feeds derived from soy and other land-based crops are available and are used, fishmeal and fish oil have skyrocketed in popularity because forage fish are easy to catch in large numbers, and hence, relatively inexpensive.

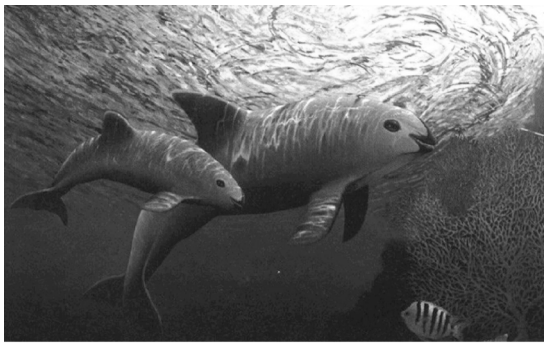
Entitled "Forage Fish: From Ecosystems to Markets," the study is a product of the nine-year Sea Around Us Project, a partnership between the University of British Columbia in Vancouver and The Pew Charitable Trusts. The Sea Around Us Project has been primarily funded by the Pew Institute for Ocean Science, which is now the Institute for Ocean Conservation Science at Stony Brook University. The abstract is available online at http://arjournals.annualreviews.org/toc/energy/33/1.

"It defies reason to drain the ocean of small, wild fishes that could be directly consumed by people in order to produce a lesser quantity of farmed fish," said Dr. Ellen K. Pikitch, executive director of the Institute for Ocean Conservation Science and a Professor at Stony Brook University's School of Marine and Atmospheric Sciences. "Skyrocketing pressure on small wild fishes may be putting entire marine food webs at great risk."

Forage fish account for a staggering 37 percent (31.5 million tonnes) of all fish taken from the world's oceans each year, and 90 percent of that catch is processed into fishmeal and fish oil. In 2002, 46 percent of fishmeal and fish oil was used as feed for aquaculture (fish-farming), 24 percent for pig feed, and 22 percent for poultry feed. Pigs and poultry around the world consume more than double the seafood eaten by Japanese consumers and six times the amount consumed by the U.S. market.

Despite this large-scale extraction, few management plans have been created to guide the

sustainable removal of these fish, and little is known about the role of forage fish in the marine ecosystem and how fishing impacts them. The most intensive commercial use of these fish is for farmed-animal feed, but there is also a growing demand for human fish oil supplements. In some areas of the world, especially developing countries, almost all of the small fish used as farm feed are, or once were, eaten by people. These include the Peruvian and European anchovy, capelin, Japanese pilchard, round sardinella, and European anchovy. "The use of forage fish for animal husbandry competes directly with human consumption in some areas of the world," the authors write. Excessive removal of forage fish could also hurt populations of seabirds and marine mammals that rely upon them as food.



"We must find a better way to manage forage fisheries before we cause irreversible damage to the broader ocean environment which depends on them as a food source," said Joshua Reichert, managing director of the Pew Environment Group. "Human beings are not the only, or necessarily, the most important consumer of these fish. Whatever people take out of the sea needs to be carefully calibrated to ensure that sufficient fish are left to sustain populations of other fish, seabirds and marine mammals which all play a major role in the healthy functioning of the world's oceans."

This fall the Institute for Ocean Conservation Science at Stony Brook University will launch the Lenfest Forage Fish Task Force, a team of preeminent scientists and policy experts from around the world that will address this escalating environmental dilemma. The Task Force will be chaired by Dr. Pikitch and funded by the Lenfest Ocean Program. Task force members will by 2010 develop scientific approaches to sustainably manage forage fisheries using "ecosystem-based fisheries management," which emphasizes the interconnectedness of species and habitats and breaks from traditional species-by-species management.

http://www.underwatertimes.com/news.php?article_id=51872439100

Mexico Pays Fishermen to Help Save a Species

By Elisabeth Malkin

About 800 fishermen in the northernmost crook of the Gulf of California have taken up the government`s offer of payments to stop fishing with nets and, in some cases, to stop fishing altogether, Mexican conservationists said on Tuesday. The offer is intended to save a small porpoise that is threatened with extinction as an unintended byproduct of commercial fishing. The porpoise, called a vaquita, is often trapped and killed in the gill nets that fishermen use to catch shrimp, mackerel and sharks.

Probably no more than 150 vaquitas survive, conservationists say. The population could fall to 100 in a couple of years. If that occurred, there would be too few sexually mature adults left for the species to recover.

'We have one or two years,' said Omar Vidal, the director of the World Wildlife Fund in Mexico and a biologist who has studied the vaquita for 25 years. 'We`re on the brink.'

The Mexican government agrees. It has spent about $20 million over the last two years on conservation measures, primarily to persuade 800 of the 4,000 registered fishermen in the area to accept its offer to stop using nets or to cease fishing

entirely, according to the environment minister, Juan Elvira Quesada. Next year, officials hope to spend an additional $13 million to continue the plan.

Many of the fishermen who have accepted the offer will use the money to start businesses. For those fishermen reluctant to give up their livelihood, there is a new net, developed with the help of the World Wildlife Fund, that does not trap the vaquita.

With dark doe eyes and pale skin, the vaquita looks as if it had been drawn by a child who outlined the eyes and mouth in black felt-tip pen. It inhabits the Gulf of California`s shallower waters.

The conservationists` sense of urgency is driven by a sad precedent. Last year, a cousin of the vaquita, the Chinese river dolphin, was declared extinct.

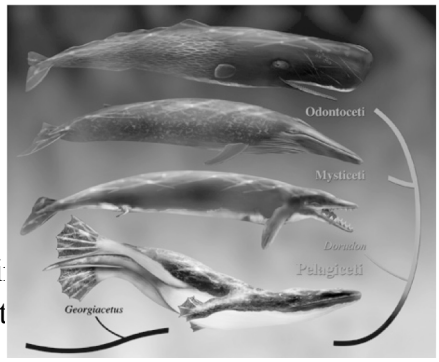
'I see this as our last opportunity,' Mr. Vidal said.http://www.oceanconserve.org/shared/reader/welcome.aspx?linkid=109303

WHALES HAD LEGS, WIGGLED HIPS, STUDY SAYS

By Sara Goudarzi

An early whale had large back legs, a tail like a dog's, and a hip-wiggling swimming style, according to a new fossil study.

The discovery helps pinpoint the advent of "modern" whale flukes to between 38 and 40 million years ago, scientists say. Flukes are the two wide, flat triangular lobes on a whale's back end and are made of ski and connective tissue, with bones in t middle. Scientists have known whales evolved from semiaquatic, four-footed creatures with long, thin tails to today's fully aquatic mammals with fluked tails, no back legs, and flippers instead of front legs. But it was previously unknown when the tail flukes first arose in the whale family tree. "What's interesting about this animal is that it had these back legs that it used to push itself through the water," said study author Mark D. Uhen, a paleontologist from the Alabama Museum of Natural History.



"This animal didn't have flukes, but the ones just a little bit younger [geologically] did. So we can really narrow that time frame now."

Uhen's study is detailed in the latest issue of the Journal of Vertebrate Paleontology.

FOSSIL PUZZLE Amateurs found different parts of the newly described fossils over time in Coffeeville Landing, Alabama.

After the various fossil parts were brought to the University of Alabama in 2005, Uhen realized that all the pieces belonged to the same individual of the species Georgiacetus vogtlensis.

"This is not a new species," Uhen said. "What's significant about it is that we learned more about a species that we already knew."

After analyzing the fossils for almost three years, Uhen concluded the individual had a tail, but no fluke, and that Georgiacetus wiggled its hips and moved its entire trunk up and down through the water to move forward—a swim stroke whales no longer use. "We knew some fossil whales had a tail fluke from slightly younger [fossils]. But we hadn't had decent tail vertebrae to tell where [in time] the whales had tails and where they didn't," Uhen said. "This one little vertebra tells us that Georgiacetus vogtlensis didn't have a tail fluke."

SURPRISE Jonathan Geisler, of Georgia Southern University, said the new findings, if true, would force a rethink of early whale migrations. In a 2005 paper Geisler and colleauges hypothesized that the evolution of flukes helped early whales scatter around the world from

their birthplace in South Asia.

"If Georgiacetus, which is known only from North America, did not have tail flukes,"—as the new study suggests—"then our hypothesis would be wrong, and we would have to look elsewhere to explain the dispersal of early whales into the different ocean basins," said Geisler, who was not involved with the current study.

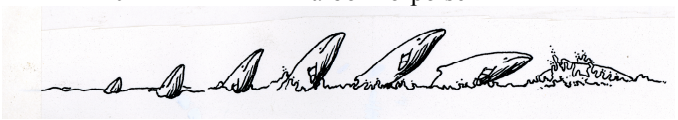
According to Geisler, the findings are a surprise, because previously evidence about the base of the tail in Georgiacetus suggested tail flukes.

"I would have guessed that it did have flukes," he said. "Of course that is the great aspect of paleontology—new fossils can lead to new understandings."

http://news.nationalgeographic.com/news/2008/09/080911-whale-legs.html

SIGHTINGS compiled by Monterey Bay Whale Watch. For updates see www.gowhales.com/sighting.htm

Date	#	Type of Animals
11/4	12	Humpback Whales
	6	Pacific White-sided Dolphins
	12	Dall's Porpoise
11/3	15	Humpback Whales
	20	Pacific White-sided Dolphins
	120	Risso's Dolphins
11/2	12	Humpback Whales
	20	Pacific White-sided Dolphins
	15	Northern Right Whale Dolphins
11/1	12	Humpback Whales
10/30	26	Humpback Whales
	7	Killer Whales
10/29	10	"Friendly" Humpback Whales
an	9	Killer Whales
10/29	18	Humpback Whales
pm	7	Killer Whales
10/28	8	Humpback Whales (3 "Friendlies")
10/27	11	Humpback Whales
	7	Humpback Whales
	1	Minke Whale
	1	Blue Shark
10/26	2	Humpback Whales
	30	Risso's Dolphins
10/26	20	Humpback Whales
	15	Dall's Porpoise
10/25	7	Humpback Whales
	18	Humpback Whales
	5	Harbor Porpoise
10/24	5	Humpback Whales
10/24	17	"Friendly" Humpback Whales
	8	Harbor Porpoise
10/23	27	Humpback Whales
	1	Minke Whale
10/22	2	Humpback Whales
	7	Killer Whales
10/22	25	Humpback Whales
	6	Killer Whales
	1	Blue Shark
10/21	8	Humpback Whales
	8	Killer Whales
	1	Harbor Porpoise
10/21	30	Humpback Whales
	20	Pacific White-sided Dolphins
	100	Risso's Dolphins
	100	Northern Right Whale Dolphins
	20	Dall's Porpoise
10/20	6	Humpback Whales
	8	Killer Whales
10/19	10	Humpback Whales
	10	Killer Whales
	10	Harbor Porpoise



NOTABLE BOOKS

Wild Blue-A Natural History of the World's Largest Animal. Dan Bortolotti. 2008 St. Martin's Press.

Ocean Reflections on a Century of Exploration. Wolf H. Berger. 2008 UC Press.

Watching Giants The Secret Lives of Whales. Elin Kelsey with photographs by Doc White and Francois Gohier. 2008 UC Press.

Orca Encounters: Images of Southern Resident Killer Whales. Text and Photography by Monika Wieland.

Encyclopedia of Marine Mammals 2nd Edition.by William F. Perrin,J.G.M Thewissen and Bernd Wersig. 2008 Academic Press, Expected Release Date Dec 2008.

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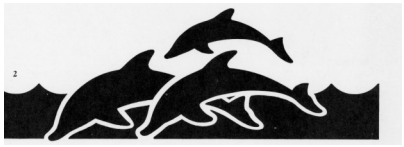

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